

QUERY	1	10	20	30	40
UniRef90_Q91553	S R T I G I I G A P F S K G Q P R G G V E E G P T V L R K A G L L E K L K E Q E				
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UniRef90_G3XF5	A Q S V A V L I G A P F S K G Q K R R G V E H G P K A I R D A G L I E R L S N S L G				
UniRef90_I7KJN7	A H S V G I I I G A P F S K G Q P R D G V E K G P D L I R S A G L V E K L R A Q G				
UniRef90_H3CD43	H S V G I I I G A P F S K G Q P R D G V E K G P D L I R D G G L L E R L S N S L G				
UniRef90_UPI0003339624	A R K V G L I G A P F A K G Q P R S G V E R G P D L I R A A G L L H M K R L Q E L G				
UniRef90_UPI0001CBB4C8	Q D V G V I G F P F S K G Q P Q P G V R S G P A A I R N A G L I E K I H N L E				
UniRef90_F1P5B4	N T I S I I G V P T D Y G Q T Q K R R G V D H G P A T L R A A G L V E R L T S I G				
UniRef90_B1HMT9	K T I A I V G C P F S G G Q P K A G V D R G P I H L I N A G L E D Q L S S G L G				
UniRef90_X8JRH1	D I S M I G V P I D L G Q S R R G V D M G P S A M R Y A G A V E R L R A L G				
UniRef90_F9DU00	N I S V I G V P M D L G Q A R R G V D M G P S A I R Y A G M V K R L E E I G				
UniRef90_UPI00031C52EB	N K R I S I I I G V P M D L G Q R R R G V D M G P S A I R Y A G V V E R L E K L G				
UniRef90_UPI00041DA1AE	K E I S I I I G V P A D F G Q S R R G V D M G P S A I R Y A G A V E R L Q A L G				
UniRef90_M7NFG9	K T L A I V G C P F S G G Q A K L G V D R G P I H L V Q A G L P E Q L S E L D				
UniRef90_J4GRK7	S G K V G I I G V P F D K G Q K K Q G V A R G P E A R A A G L I Q E L K M L E				
UniRef90_UPI0004125603	K I S I I I G V P M D L G Q S R R G V D M G P S A M R Y A G A I E K L E E L D				
UniRef90_AOA026W7H6	K L G I I G V P M D L G Q L R R G V D M G P S A I R Y A G V I E R L S D M G				
UniRef90_T0DHS1	S N K I S I I I G V P S D Y G Q N N R R G V D M G P S A I R Y A G L E A A K H				
UniRef90_F5S3G3	N N N I T I V G V P M D L G A D R R R G V D M G P S A I R Y A S L K E K L T G				
UniRef90_Q9K8M2	K K I A V I G A P M D L G Q N R R R G V D M G P S A L R Y A G L I E R L Q S I				
UniRef90_UPI000407D181	K L L G I I G V P M D L G Q L R R G V D M G P S A I R Y A G V I E R L E K L G				
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UniRef90_UPI000248D4BC	S N D I S L I G V P P L Q G A N R S G V D M G P T A I R S S K I Q A R L E A L G				
UniRef90_V6SXP2	K K L S I I I G M P M D L G Q M R R R G V D M G P S A I R Y A G I N E R L R V L F				
UniRef90_S0G6H1	S R Q I S L I G V P M D F G Q D L R R G V D M G P A A V R Y T G L I T R E L G				
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UniRef90_J3D4Z0	K Q L R I L I G A P T D I G A G R R R G A S S M G P E A L R V A N L Q Q A L Q Q H				
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UniRef90_Q4RH16	Q S V A V L I G A P F S R Q G Q R R G V E H G P K V I R D A G L I D R L S A L D				
UniRef90_UPI00046682CA	H D V A I I I K V P F G L G G A R G G A E L L G P D E L I T A G L K R E I A S L G				
UniRef90_S4Y520	D V A V V V G V P Y D G G T Y R S G A R L L G P P R R I R E A S V M L W G Y N N A				
UniRef90_K3WRJ8	Q T V A V I G A P M T H G Q P L L G T D T G P D L I R E A S R L L R P Y N P G				
UniRef90_H3BG15	D A A F V V G V P L D T G T S R P G A R F F G P R Q I R A E S S M L R A Y N S H				
UniRef90_K0KNW1	K N A K L I I A P F S G G Q G K S G V E D G P K Y L L R A G L L K E Q I E N L G				
UniRef90_A4AEJ9	A D I A V V G V P F D S G S Y R P G A R F F G P A H V R E A S R L L R P Y N P E				
UniRef90_X0PST1	Y D V A V V G I P F D T G T Y R P G A R F F G P A H I R Q S S R L L R P Y N P A				
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UniRef90_A0A011R7M1	V S S L I I G V P T D V G A G T P G A R M G P D A L R V A G I V Q A I A H F G				
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UniRef90_UPI00035C0B14	D V A V V V G V P F D S G S Y R P G A R F F G P N A I R E A S R L L R P Y N P A				
UniRef90_X5LIE0	V S I F G V P B T D V G A G T R G A S S M G P E A L R V A G L L G E A L A A R G				
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UniRef90_R6FJR0	K K A T I I I T A P F S G G Q P K G G V E L G P E Y I L N A G F Q K Q I D S L G				
UniRef90_H8X923	R V S L I I G V P T D V G A S R A G G C R L L G P Q A I L R V A G I L G P A L L E E F G				
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UniRef90_M1FIM9	D V A V V V G V P F D S G S Y R P G A R F F G P G H I R D E S R M L R P Y N M A				
UniRef90_UPI000371B109	K A V S L I I G A P T D V G A G R A G A S S M G P E A L R V A Q L Q P V L E A Q G				
UniRef90_G3TBG3	D A A F V V G V P L D I G T S R P G A R F F G P R R I R E E S V M L R S A N P S				
UniRef90_I5CIX5	D V C F V G V P L D T G T S R S G A R F F G P R A I I R A E S C L L R P Y N M A				
UniRef90_V8G195	N N K I S L I I G V P T D V G A G H R G A S S M G P E A L R V A G I T Q M L E G M G				
UniRef90_X5KZV6	D V A V V V G V P F D S G S Y R P G A R F F G P G H I R A S S K L L R P Y H P R				
UniRef90_W4FKT9	N R D L S I I I L I A P F S G G Q G K L G V E K G P K Y M L K H G L K S S I E E L G				
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50 60 70 80

QUERY	C D V K D Y G D L P F A D I P N D S P F Q I V K N P R S V G K A S E Q L A G K V
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UniRef90_I7KJN7	C A V K D Y G N V T F F E E V A N D E P I G N V K R P R A V G G S A N Q R L S A A V
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UniRef90_UPI0003339624	Y H L K D F G D L S F T P V P K D D V Y N N I V N P R S V G L A N Q E L A E V V
UniRef90_UPI0001CBB4C8	R D V K D Y G D L D F E Y I A D D P P Y G L I K N P R N V G A A N K K I S A A V
UniRef90_F1P5B4	C Q L Y D F G D L N F T Q V P N D E L Y N N I Y Y P R S V G L A S Q V L A D A V
UniRef90_B1HMT9	H E V Q D Q G D I R V S Q K Q A N A A V D E K L N L E E V V E V S T A L A N S V
UniRef90_X8JR1	W K V K F D G H H Q F I D A Q N D T P L G L K R P R L V S Q V C E A V A K V V
UniRef90_F9DU00	H Q V M D Q G N V I S A H E K T S E A G L R N L T E V I T A A T V K L A E A V
UniRef90_UPI00031C52EB	H Q V K D E G D I R I E A R K K T E P S Q L L R N L T E V I T E A C H A T K V
UniRef90_UPI00041DA1AE	Y D V K D R G D V E I P E K Y D V V E E G N L K D L N E V V V K A N Q E L S D K I
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UniRef90_Q9K8M2	Y H V D D M G D I P I D R P G E V S E E T N L K N L G E V I K A N E L L C L H V
UniRef90_UPI000407D181	Y I I D D Y G D V D I P D R K S N Q M Q D G L R N L N E V A E G N R R L A E K V
UniRef90_J9E6L5	Y R V R D L G D V M V P P E T R H E H Q K L K Y L K E V V V S V C E A L A E R V
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UniRef90_G6D7W0	L D V K D Y G D I E V P S S E R P V D V D N M A H P L V I S A C N K N L S D K V
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UniRef90_U1WE64	Y K V H D K G D I I V H P K E K T L A G T N L K Y L D E I A R V N R E L L C E A V
UniRef90_UPI000248D4BC	F R V S D C G D I E V N R H D R C C D P D E K L K Y L A E V R V V N K K L A E V V
UniRef90_V6SPX2	D E V E D L G D I A V R P E V K I D P P N S N L R N L E L V A E K N S L L A D E V
UniRef90_S0G6H1	H T V R D R G D I P I R D E A V P G P L A G N T Y V E E I S R C N A V Y T L G
UniRef90_UPI00023768D4	L R V L D Q G G N L S G P A N P W Q T P V Q G Y R H P E V V Q W N Q S V F D A V
UniRef90_R9AE79	L S V D A I E D H S F S V L E N D T D I G K L K Y P R T V S A A T E K V Y Q E V
UniRef90_UPI0003F8DB79	Y E V D D R G D I H I P E R Y D V K N E D N L K D L D V V Q Q A S E D L Q T A V
UniRef90_S6E776	W D V T K H E P L K A L P E S D E V Q S G K V K N A N L V G E A T E R I Y R T N
UniRef90_K1QRW5	L D V H D Y G D V G T P S H E D D H H F D L P K N P K H V A T A S E N I A A D V
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UniRef90_F6EGA1	L D V H P F A A Q V A D F G D L G V N P F D I N D A L V A V Q S A V
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UniRef90_K3WRJ8	W G N L A L F V P P T K N D P T L D P R Y G R A K H S F P V G S G L R Q I K D I Y
UniRef90_H3BG15	T H A A P Y Q S L Q A A D I G D I N V N L Y N L K D S C R Q Q I R E A Y
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UniRef90_H3SNB4	L Q T I D E V L P P S A Q D S T Q A S G T K L H E E I A A L N S E L A D R V
UniRef90_A0A024IL69	L S V T D L G N L A G P P N P W Q P P H D G Y R H I D E V I V R A W N L G L H Q A V
UniRef90_J8TBB4	D E V F D F G D I P V S R R E E K V Q K L R H L N E I V E A C T A L A N Q I
UniRef90_UPI00047E8DF9	H R V T D G G N M K V E P E T Q A S G A E N A H Y L K Q I A E V C T R T A D A V
UniRef90_B5RV02	W N N P L E S T N Y E K S K S D D K D E Y G I K N T K I V S E C C E K I H N S V
UniRef90_W6MRD5	W D V A I S E P L K D L D K N A K D V F G K C H K P R A V S D S A Q K I Y K G V V
UniRef90_UPI00047E5832	L E V A P F R A A Q V V D A G D V A A S P F S I D D A L A T I E D D V
UniRef90_K8ZM00	I E V R D L G N L D G P R N P W Q S P V G G Y R H L D E V V A W N R A L I M E A S
UniRef90_H0QK35	A D A W P F Q S Q Q I A D L G D V G V N P Y N I D E A I T S I E W A M
UniRef90_K2QJR0	Y T V E D R G D L R P E P A T D L A D M P R A K N L P V V G A F T R A I E E A A T
UniRef90_A0A011R7M1	V E V R D C G N L S G P G N P D L P A V N G F R H M R E V A A W N R S V H D A V
UniRef90_R8BP14	H G D D T V H L Y T D L V P K E D H P Y R G M K N P K A V S S V T R R I A D Q V
UniRef90_UPI00035C0B14	Q D A A P F A L A Q V A D I A G D I A V N P F D I G E A V A T V I E G A A
UniRef90_X5LIE0	L D I K P F E V C Q F A D A G D I A C N P F D I T E A V D Q I A A Q L
UniRef90_UPI00047D94D4	V D V V D T G D V Y G P K N P W R G P V D G Y R H L D E V V A W N R A V Y Q A S
UniRef90_UPI000467AFE7	F D V T D Y G D L S V F G M A D D P P P E K A R H Y R D I Q R W T R L L S M R G
UniRef90_A3XBFB3	T G A A P F D S L N A G D I G D I A I N T F S L K E S L R I I E E S Y
UniRef90_R6FJR0	M E C L D K G D L I P M A S G K T A D N M R C Y E Q V N D L N K K L Y H E V
UniRef90_H8X923	W I E N P L G D V S L E E K K N V K D E Y G V K N A A I V S K C C Q L I F E A S
UniRef90_UPI0004764A04	C E V R D V G D L V G P V N P Q R P P V D G Y R H L T E V I S W N R T V F E V T
UniRef90_M1FIM9	T R A A P F D S L Q V A D I G D V P I N T F N L L K S V E L I T E F Y
UniRef90_UPI000371B109	C E V I D R G N L A G P P N P W Q P P V N G Y R H L D E V V A W N Q A V H E A V
UniRef90_G3TBG3	T G A L P F Q F L M V A D I L G D V N V N L Y N L Q D S C R L I Q E A Y
UniRef90_J5CIX5	T R A A P Y D S M Q V A D I G D V A I N T F N L Q K S M D I V T E A Y
UniRef90_V8G195	L E V H D M G N L H G P A N P F T A P K D G Y R H L N E V I Q W N Q L A H D A I
UniRef90_X5KZV6	L D V E P F A V Q Q V A D I A G D I A V N P F D I T E A V D Q I K D G I
UniRef90_W4FKT9	W S T E L E S A L D E A Q Y V S K L K E E K E S S T G G V G D A T E L V Y K S V
UniRef90_J8PH29	L D V L D T G N L L G P A N P W Q P P T A G Y R H L D Q V V E W N R R V M E A V
UniRef90_UPI0004246E31	L E V H D M G N L H G P A N P F T A P K D G Y R H L D Q V V E W N R R V M E A V
UniRef90_A4T4W6	L D V E P F A V Q Q V A D I A G D I A V N P F D I T E A V D Q I K D G I
UniRef90_UPI0003B60838	H T V T D H G D V P I P E T V D K H K T A G Y V F L N Q I D S C R A T V Q R V
UniRef90_A7F108	L G Y K L H H D N T V H S Y K E L I P F E R M K N P R A V S A V T Q K L S E Q V

QUERY	90	100	110	120
UniRef90_Q91553	A E V K K N G R I S L V L G G D H S	L A I G S I I S G H A R V H P D L G V I W V D		
UniRef90_M4AK46	S K A V G A G H T C V T L G G D H S	S L A F G S I I T G H A Q Q C P D L C V I W V D		
UniRef90_G3XF5	S R A V G A G H T L V M L G G D H S	S L A I G S I V S G H A Q Q C P D L C V I W V D		
UniRef90_I7KJN7	S R A V G D G N L C V M L G G D H S	S L A I G S I V Y G N T Q Q C P D L C V I W V D		
UniRef90_H3CD43	H A V K N D G H T C V M L G G D H S	S L A I G S I V Q G H A A A K K D L C V V W V D		
UniRef90_UPI000339624	R A V K M D G R V S V M L G G D H S	S L A I G S I V H G H A A A V G Q L A V C V I W V D		
UniRef90_UPI0001CBB4C8	G R A I S D G Y S C I T V M L G G D H S	S L A I G S I V H C Q D L C V I W V D		
UniRef90_F1P5B4	S N V I N D N R C I S T V M L G G D H S	S L A M S I L H G H A T A R P D M C V L W I		
UniRef90_B1HMT9	H E V V E Q K K F P L V I F G G D H S	S L A I G T L A G L G E H Y K N L G V I W Y D		
UniRef90_X8JR1	G D H A R N G E P L T L G G D H S	S L A M G T I S G V L S A H P E A C V V W V D		
UniRef90_F9DU00	S N V I V A D N H F P L V L G G D H S	S L A I G T L A G L A D H Y K N L G V I W Y D		
UniRef90_UPI00031C52EB	N E V M E N G Q F P L V L G G D H S	S L A I G T L A G V A N K C E N L G V I W F D		
UniRef90_UPI00041DA1AE	T K A V D E G D F P L I L G G D H S	S L A I G T L A G L N E H Y S N L G V I W Y D		
UniRef90_M7NFG9	S E T V R D G R F P L V L G G D H S	S L A M G T I S G T F Q Y P D A C V V W V D		
UniRef90_J4GRK7	G E H A K K G Q P L T L G G D H S	S L A M G T I S G I S K H Y E N L G V I W Y D		
UniRef90_UPI0004125603	D K E I E K R H F P L I L G G D H S	S L A I G S I L A G I S K H Y E N L G V I W Y D		
UniRef90_A0A026W7H6	Q Q V L Q E G R Q A L T I G G D H S	S L S I G T I L D G H V K E K K D I A V I W V D		
UniRef90_T0DHS1	S T V V S E G H P L V L G G D H S	S L S I A I G S I L A G M A Q S S T N Y G V I W F D		
UniRef90_F5SIG3	D D V I Q K Q G R F P L V L G G D H S	S L S I A I G T I L A G V A K R R H Q L G V I W F D		
UniRef90_Q9K8M2	E K A V A N G Y F P L V L G G D H S	S L S I A I G T I L A G V A K R R H Q L G V I W Y D		
UniRef90_UPI000407D181	E R I I E G D A F P L I L G G D H S	S L S I A I G S I L A G I A R R H Y S N L G V I W Y D		
UniRef90_J9E6L5	R D A V G S G Y T P V I L G G D H S	S L S I A M G S I L A G M A A A K K K Q F G V I W F D		
UniRef90_UPI0001850CA2	Q K V I G E D S F P L I F G G D H S	S L S I A I G T I L A G V S K S Y N N L G V I W Y D		
UniRef90_G6D7W0	S Q V L K D G R V A T I G G D H S	S L S I A I G V G T V D G H Y K V N E N M I L I W V D		
UniRef90_P39138	N K V I E E K K F P L V L G G D H S	S L S I A I G T L A G T A K H Y D N L G V I W Y D		
UniRef90_U1WE64	S D E M G K G N F P L V I G G D H S	S L S I A I G T I A G V L T H R P K T G V I W Y D		
UniRef90_UPI000248D4BC	A Q E M G T G R F P L V I G G D H S	S L S I A I G T I A G V L T H R P K T G V I W F D		
UniRef90_V6SPX2	D R I I E S E S F P L V L G G D H S	S L S I A I G S I L T G V S K H Y K N L G V I W Y D		
UniRef90_S0G6H1	R R V M E E K D F P L F V G G D H S	S L S I A I V G T V A A A G A D G E P I G L I W L D		
UniRef90_UPI00023768D4	S A A L H Q G H P I I L G G D H S	S L S I A I G L G S I S A V A H H C K P L R V L W L D		
UniRef90_R9AE79	K K H A Q A G K P L V T L G G D H S	S L S I A M G T I S G S L S A H P E L C V V W V D		
UniRef90_UPI0003F8DB79	K K A A E E G Y F P L V L G G D H S	S L S I A I G T L A G A A R S R N L G V I W Y D		
UniRef90_S6E776	L E A L N Q D S F P L T L G G D H S	S L S I A M G T V S A V L G K H P D A G L L W I D		
UniRef90_K1QRW5	Y N V I K S G R T C L A L G G D H S	S L S I M A I G S I F G H S L A E P E H V V V W V D		
UniRef90_J2AU24	Y D A A K A G H F P L I L G G D H S	S L S I S M G S V R Y A A E N D R P L F V L W L D		
UniRef90_F7Z1H0	D E I V K S N R F P L I F G G D H S	S L S I A I G T I A G I S K H Y R N L G V I W F D		
UniRef90_W1QJ25	T A A H E N K T L P V T V G G D H S	S L S I G M A T I L A F A N A H P D G G I I W I D		
UniRef90_UPI0002EB9836	S Q S V D D G N F P L V L G G D H S	S L S I A I G S I S G I S K H Y E N L G V I W Y D		
UniRef90_C7QIS6	G E L V V G A G S K L V T I G G D H S	S L S I A L P L R T M A R R H G P V A L L H F D		
UniRef90_B7AA69	M T L P E E V F P I V L G G D H S	S L S I A M G S V S G V A R G R V V G V I W V D		
UniRef90_F6EGA1	T D L R R D G S T V L T L G G D H S	S L S I A L P L L R A L H R D H G K V A V L H F D		
UniRef90_UPI0003DE9B3A	Q Q I L K K D R R I L T L G G D H S	S L S I G I G T I D G H V K E K G D I A L I W V D		
UniRef90_B2A4R3	S K E A S Q N R I P I I L G G D H S	S L S I A I G S I A G M K Q A V G E L G V I W F D		
UniRef90_UPI0003197430	N E T V E K G H F P I I L G G D H S	S L S I A I G S I S G I S K H Y E N L G V I W Y D		
UniRef90_UPI00037FAF29	A H T M P E G T F P I I L G G D H S	S L S I A M A S V T G A S R H R R I G V V W V D		
UniRef90_X1Y0M3	T E V L D D E R L C I T L G G D H S	S L S I A I G S I D G H L H H S K E V A V I W V D		
UniRef90_B8FBW33	A Q A I K E E V I P L L I I G G D H S	S L S I A I G S I A C A S G K Q F G V I W F D		
UniRef90_G5JFF4	S E S I I E N N R F P L L I I G G D H S	S L S I A I G S I S G V S K H Y N N L G V I W Y D		
UniRef90_UPI00035CAC14	E K S L D E D N Y P L I I L G G D H S	S L S I A I G T I A G L L R K F S R L L G V L W F D		
UniRef90_J3D4Z0	H A T L Q Q G Q Q L P V L L G G D H S	S L S I A I G S I A A V A Q Y C R E L L V L W L D		
UniRef90_Q4T7W8	S E L L S S Q G T R L V T L G G D H S	S L S I A I L P L R A V H R V H G P V A L L H F D		
UniRef90_Q4RH16	S R A V G A G H T L V M L G G D H S	S L S I L A I G S V G H A Q Q C P D L C V I W V D		
UniRef90_UPI00046682CA	S G A I A G G A F P L V L G G D H S	S L S I A I G S L A G L S A H Y S K L G V I W F D		
UniRef90_S4Y520	D A V L A A G A T V L V A L G G D H S	S L S I V S L P L M R A H A R K F G P L G V V H F D		
UniRef90_K3WRJ8	E Q K A S E G K F C L V L L G G D H S	S L S I A I G S L A G L L S V H P D A G V I W V D		
UniRef90_H3BG15	Q K I L K A G C I T L T L G G D H S	S L S I I T Y P L L Q A V A E K H G P V G L I H I D		
UniRef90_K0KNW1	K S A A L D G F G P I T I I G G D H S	S L S I I G M G T V A G S F A K Y P D A G L L W I D		
UniRef90_A4AEJ9	T E L S A D G K R L V T I I G G D H S	S L S I A I L P L R V V A E K H G P I A V L H F D		
UniRef90_X0PST1	Y E L I K K D G A T L V T I I G G D H S	S L S I A I Y P L L K A V N R V H G P V A L V H F D		
UniRef90_H3SNB4	A E A A A S G A V P I I L G G D H S	S L S I A I G S I A G I S K H Y E N L G V I W F D		
UniRef90_A0A024IL69	L A E L R A G H P L V L L G G D H S	S L S I A I G L G S I S A V A T H K K L R V L W I D		
UniRef90_J8TBB4	E E V E T A G Y F P L V L L G G D H S	S L S I A I G T I A G V A K M K K N L G L I W Y D		
UniRef90_UPI00047E8DF9	L I K T L E E G M T P L V L L G G D H S	S L S I A I A A G S I I S G V U S E F Y R R V G L V W I D		
UniRef90_B5RV02	K G I A N N G R L P I T V V G G D H S	S L S I A I G M T V A G S F A K Y P D T C I L W V D		
UniRef90_W6MRD5	R E A I Q N K T L P I V L V G G D H S	S L S I A I G T I A G L T R H P E T C V V L W I D		
UniRef90_UPI00047E5832	R R V T A D G R K V V V L G G D H S	S L S I A I G T I A G L P V L R A L S A Q H G P L A L V H F D		
UniRef90_K8ZM00	Y A E L C A G R M P I M L G G D H S	S L S I A I G I G S I T A V A R Y C R E L R V L W L D		
UniRef90_H0QK35	R G V L E R S R R L L V L G G D H S	S L S I A I G I G S I T A V A R Y C R E L R V L W L D		
UniRef90_K2QJR0	Y E A A A S G A V P I I L G G D H S	S L S I A I S M G S V S G M A R Y G R P L Y V L W L D		
UniRef90_A0A011R7M1	H A E L H A G R L P I M L G G D H S	S L S I A I I G S I S A V A R H C R E L R V L W F D		
UniRef90_R8BP14	T Y H A A A A G R L V L T L G G D H S	S L S I A I I G T I I G S I S A V A R A G R E L R A V I W V D		
UniRef90_UPI00035C0B14	D E L L A T G A R L M T L G G D H S	S L S I A I I L P L R A V A R R H G P V A L L H F D		
UniRef90_X5LIE0	T E L L Q S G G T R A V I V G G D H S	S L S I A I I L P L R A V H A V H G P V A L L H F D		
UniRef90_UPI00047D94D4	S D I L G A G R M P V M L G G D H S	S L S I A I I L P S L R A V A H A V H C R R L R V L W L D		
UniRef90_UPI000467AFE7	Y E I I A Q T G A I P I F L G G D H S	S L S I A I I L P S L R A V A H A V H C R R L R V L W L D		
UniRef90_A3XB3F	Q A I L L S G N V I P M A M G G D H S	S L S I A I T L P I L R A I A A K Y G P V A L V H V D		
UniRef90_R6FJR0	M S S L L E N G A F P I V L G G D H S	S L S I A I A A G S I I S A T S K H Y Y K N I G I I W V D		
UniRef90_H8X923	K K S L L S E G R R L P L V I G G D H S	S L S I A I G T A T V G A S L A H N P N T C I V V W V D		
UniRef90_UPI0004764A04	A A E L A D G R L P I L L G G D H S	S L S I A I A I G S I I S A V A A H C K K L R V L W V D		
UniRef90_M1FIM9	D R I L L E H N C I P I T L G G D H S	S L S I A I T L P I L R A I A K R H G P V G L I H I D		
UniRef90_UPI000371B109	Y A E L Q Q N R L P I L L G G D H S	S L S I A I G I G S I I S A V A R H C R E L R V L W L D		
UniRef90_G3TBG3	Q K I V A A G G C V P L I T L G G D H S	S L S I A I T Y P I L Q A M A K K H G P V G L L H V D		
UniRef90_I5CIX5	D E I I L A H H G C V P P L T M G G D H S	S L S I A I V L P I L R A M K K K Y G P V G V V H V D		
UniRef90_V8G195	Y A E L K R G H P I M L G G D H S	S L S I A I G A G S I I S A V A R Y C K E L R I I I W L D		
UniRef90_X5KZV6	D E L L R E G G T K L V T L G G D H S	S L S I A I A L P L L R S L H R D H G P V I A V L H F D		
UniRef90_W4FKT9	S E L L Q L P S R R P V A V V G G D H S	S L S I A I S Y P L K A C H C E A Y G P V A L V L H F D		
UniRef90_J8PH29	S K V A Q A G R F P L T L G G D H S	S L S I A I A M G T V S A V L D K Y P D A G V L W I D		
UniRef90_UPI0004246E31	A S Q L R R F G R L P V M L G G D H S	S L S I A I A V G S I I T A V A A A H C H C R K L R V L W L D		
UniRef90_A4T4W6	L G L V T R P E Q R F V F L G G D H S	S L S I A I A L P A L Q A V N E L H G P V A L V H F D		
UniRef90_UPI0003B60838	R D L P P A G D F P I T L G G D H S	S L S I A I V S M G T V T G N A L R G P R T G L L W V D		
UniRef90_A7F108	Y E H A K E G R C V L T I G G D H S	S L S I A I I G S V S G T A K A G R E M A L I W V D		

QUERY	130	140	150	160
UniRef90_Q91553	A H T D N T P L T T T S G N L H G Q P V S F L L K E L K G K I P D V P G F S W			
UniRef90_M4AK46	A H A D I N T P L T T P S G N L H G Q P V S F L L R E L L Q D K V P P I P G F S W			
UniRef90_G3XF5	A H A D I N T P M T S P S G N L H G Q P V A F M K E L L Q D K M P D I P G F S W			
UniRef90_I7KJN7	A H A D I N T P L T S P T G N I H G Q P M S Y L I H E L L H S K I P V L P N F S W			
UniRef90_H3CD43	A H A D I N T P L T T P T G N I H G Q A M S Y L L H E L L C S K I P T L P G F S W			
UniRef90_UPI0003339624	A H A D I N T P L T T S S G N L H G Q P V S F L L R E L L Q D K V P R L P G F S W			
UniRef90_UPI0001CBB4C8	A H V D N T P L T S M T G N I H G T P V S F V V H E L L K D Y V P V L P G F E W			
UniRef90_F1P5B4	A H A D I N T P L T T Q S G N L H G Q P L S F L L R E L L Q D K V P Q L P G F S W			
UniRef90_B1HMT9	A H A D L N T P E T T P S G N I H G M P L A V S I G L G H E R L V Q I R N			
UniRef90_X8JR1H	A H A D N T P S T S T S G N I H G M P L S F L L R E L L K D Y V P V L P G F E W			
UniRef90_F9DU00	A H A D M N T R E T S T S S G N I H G M P L A V S M G L G H E R L V N V H R			
UniRef90_UPI00031C52EB	A H A D L N T G D T S P S G N I H G M P L A I S I G I G Q E E L V N I R G F S			
UniRef90_UPI00041DA1AE	A H G D L N T G E T S T S P S G N I H G M P L A V S L G I G H P S L T E I G G			
UniRef90_M7NFG9	A H T D L N T A E T S P S G N I H G M P L A V A M G L G H G D L T S I G G			
UniRef90_J4GRK7	A H G D I N T A E T T D S G N I H G M P V S F L L G G H S K I P E F S W			
UniRef90_UPI0004125603	A H G D L N S G E T S P S G N I H G M P L A V S L G I G H E K L T N L G F A			
UniRef90_A0A026W7H6	A H A D L N T N K T T S E S G N V H G M P V A L L T T E L A D Y W P Y L P G M D W			
UniRef90_TODHS1	A H G D M N T A E T T P S G N I H G M P L A V S L G Y G H D D L I S G G			
UniRef90_F5SIG3	A H G D L N T A D T S P S G N I H G M P L A A S L G I G H P D L V N G G F S			
UniRef90_Q9K8M2	A H G D L N T A E T S P S G N I H G M P L A V S L G I G H K E L T S I G G F A			
UniRef90_UPI000407D181	A H G D L N T S D T S P S G N I H G M P L A V S L G I G H E A L T G L F G			
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UniRef90_G6D7W0	A H A D I N T N K T S E S G S V H G M P V A L L V K E L S D Y W P Y L P T M D W			
UniRef90_P39138	A H G D L N T L E T S P S G N I H G M P L A V S L G I G H E S L V N L E G			
UniRef90_U1WE64	A H G D M N T S E T T S P S G N I H G M S L A V S L G Y G H E S L T I G S G			
UniRef90_UPI000248D4BC	A H T D V N T E F T T T S G H I H G M S L A V L L G G H H P S L T S I G G			
UniRef90_V6SPX2	A H A D L N T A D T S P S G N I H G M P L A V S L G G H E L L T Q L L G G			
UniRef90_S0G6H1	A H G D F N T P D T S P S G N I H G M P L A I L M G E G H P D L V N V G R			
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UniRef90_K1QRW5	A H A D I N T P L T S S S G N M H G M P L S F L V K E L Q P Y I S K L P G F F			
UniRef90_J2AU24	A H S D F N T P E T S P S G N I H G M P V A F F C G L A D F A E I L P K			
UniRef90_F7Z1H0	A H A D M N T P E T S P S G N V H G M P L A A S L G Y G H A S L T G V Y G			
UniRef90_W1QJ25	A H A D I N T P S T T P S G N L H G C P V A F A M G E E D S W P P H F D W I K Q			
UniRef90_UPI0002EB9836	A H G D L N P E E S S P S G N I H G M P L R V L A G D G D S R L V N I S N F A			
UniRef90_C7QIS6	A H L D T W D T Y F G A P Y T H G T P F R R A F E G I L D S S A V A H V G T			
UniRef90_B7AA69	A H A D F N T P E T S P S G N I H G M P L A V L C G L G H P R L T E V F Q			
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UniRef90_Q47TW8	A H L D T W D T Y F G E P Y T H G T P F R R A V E E G I L D T E A L T H V G I			
UniRef90_Q4RH16	A H A D L N T P M T S P S G N L H G Q P V S F L L K E L R D K V P D I P G L S W			
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UniRef90_H3BG15	A H T D T G D V V L G E K C H G P F R R C V E E G L			
UniRef90_K0KNW1	A H A D I N T P L T T D S G N L H G C P V A F L M G L D D H S Y P P E L K W			
UniRef90_A4AEJ9	A H L D T W D T Y F G A P I T H G T P F R R A S E E G L I D M N A S M H V G I			
UniRef90_X0PST1	A H L D T W D T Y F E T P L H G T P F R R A A E D G L F V Y G H S A H V G I			
UniRef90_H3SNB4	A H G D L N T E D T S P S G N I H G M P V A V N L D Q G H P L L T R I R R			
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210 220 230 240

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R	L G I G K V M E E T L S Y L L G R K K R P H L S F D V D G D P S F T P A T	C M G I K K V M E K T F D Q L L G R R D R P H L S F D I D A F D P A L A P A T	R L G I Q R V M E V A L D H L I G R R K Q R P H L S F D I D A F D P S L A P A T	Q I G I Q K V M E R T L D H L I G R R K Q R P H L S F D I D A F D P T L A P A T	R L G I S K V M E E T C D Y I F S K V K K P H L S S Y D I D A L D P S I S P A T	R L G I A R V M E E T S E Y L C A R A K K P H L S S Y D I D A L D P S V T P A T	R L G I Q K V M E Q T F D L L I G K R Q R P H L S S F D I D A F D P A L A P A T	H L G L V E V L K R A M D N V N P N R D R P H L I S S F D I D A L D P L L A Q S T	R L G M T R V M E D A L A Y L K E R N V D G L H L S S F D I D A F D P S L A P A T	R Y G I G R V V E L A H V N P D G K R P I H L S S F D I D A L D P T V A P S T	R Y G M S A V I Q Q T L I Y F S T R Q V D G V H L S S F D I D A L D P L Y T P G V	K L G M T E V M D Q T L A Y F K E R K V D G V H L S S L D L D G L D P L Y T P G V	R M G M T K V M E E A I E H V S K N T D S V H L S S L D L D G L D P H D A P G V	R D G M T A I M Q D A I R Y L E E R G V D G V H L S S L D L D G L D P L Y T P G V	K Y G I G R V V E M A D H V N P K R D P I H L S S F D I D A L D P S V A P S T	R M G M P K V M E E T I S Y L K E R T D G V H L S S L D L D G L D P S E A P G V	R Y G I H D I I H M A I N K I D P H N T K S L H V S S F D I D S L D P L E A P S T	Q R G M A V V M E E A I Q I A T N G T D G I H L S S L D L D G L D P T L A P G V	R L G M G A V V M E E T I C I V T D G T D G V H L S S L D L D G L D P H D A P G V	R L G M T R V M E E A I A H V S N G T D G V H L S S L D L D G L D P N D A P G V	R M G M T A V I Q E T I Q Y L K E K T D G V H L S S L D L D G L D P N E A P P G V	R M G M D A V M R K A I E L A A T G T D G I H L S S L D L D G L D P M F A P G V	R M G M T K V M E E T I K Y L S G R T D G V H L S S L D L D G L D P Q D A P G V	D Y G I H K S I D H V L Q R L D P K G N K P I H V S S F D I D S L D S L E A P S T	R L G M T K V I E E T L D Y L S A C D G V H L S S L D L D G L D P N D A P G V	R L G M A R V M E E A V K I V T D G T D G V H L S S L D L D G L D P H D C P G V	K Y G M K A V M D E A L E R V S A G T D G I H L S S L D L D G L D P R E A P G V	R L G M A T V I E E T V N Y N L K E K T D G V H L S S L D L D G L D P T D A P G V	E Q G I S T V A N K A V M K F A H M K R I H L T V D M D A L D P V E A P G V	E V G M R Q T M Q Q A L A G L D A S D A D H L V S S F D I V D F L D P E I I A P G V	K W G I G R V V E M A N D V N P D G T R P V H L S S F D I V D F V D A M D P S V A P S T	R L G M T K V M E E A A H V S Q G T D G V H L S S L D L D G L D P H D A P G V	R Y G I N Q V I E M A L Q H L G N G P V M C S Y D V D A I D P Q Y V P A T	R H G I K D V V E K A M H Y L D P E G V K P I H L S S F D I D A L D P S L A P S T	E Q G V A V I L R Q I L E T I E K A N G L L H V S S F D I D F L D P D F A P G V	R I G M E S V M A A S I N Y N L K E R T D G I H L S S L D L D G L D P Q E A P G V	K Y G I N K V V E M A L Q R V N P S G N K P V H V S S Y D V D A I D P L Y V A A T	K L G I K Q V M E E T L D Y L K S K T D G I H L V S S L D L D V D A I D P A E T P G T	R Q G V D A V Q Q A L R E R I G S R P L Y V S S I D I D V L D P A H A P G T	R L G I A P I A E E A L S Y L E G L P V H V S S I D A D V L D P T L A P G V	T D G V A S I I D R M R R R L G T S A D G P V Y V S S I D I D V L D P A F A P G T	R Y G I H D V T Y M A L S K I D P N D S R S I H V S S F D I D S L D P L E A P C T	K M G M N R V M E E A L S I V T S N T D G V H V S S L D M D A L D P V E A P G V	R L G M G Q V I S E T I L E Y L K D K T D G I H L S S L D V D A L D P V E T P G T	T L R V P A I A Q A V A E K F R N F E R V H V S S I D A D V L D P E I I A P G V	K Y G I R E V M R M A L E R I D P E G T R S L H V S S Y D I D S L D V L E A P S T	R L G M E A V V R Q G L E I A N R G T H G V H I I S F D L L D V L D P S E A P G V	K L G I Q A V I E N A L E Y L K S R N I D G L V D A L D P I E T P G T	R Y G M R D V M A K A I D I V T D Q T D G V H L S S F D I D A V D P L Y A P G S	E H G M R V T M E Q A L A G I D A D T H L H V S S F D I D F L D P A V A P G V	R R G V D E I I A D M V R Q R I G N R P L Y V S S V D I D V L D P A H A P G T	R L G I G K V M E A T F D H L L A R T Q R P I H L S S F D I D A F D P S L A P A T	R I G I Q Q V V E Q A L A V V G E G T D G I H I S F D M D C I D P R E A P G V	E L G L P A V V R M M R E A I R G P I Y V S S L D I D A A D P A F A P G T	R Y G I G K T M E M A L D H L C G H K E R P L H M S Y D I D A V D P L L A P S T	M K S L T P L M E E I R K Q M G S G P V Y L S S F D I D G L D P A F A P G T	R Y G I N Q V I E M A L K A I D P E G N T P I H L S S Y D V D S I D P L Y V P A T	T E G L P S A I E R M L A R L G D R P V Y V V S S V D I D V L D P A H A P G T	R R P I D D I I D Q L R Q T I I G E T P L Y V V S S I D I D V L D P A H A P G T	R K G M P Y V M E Q A L R I L G D G T D G V H L S S F D I D S L D P A E A P G T	E M G M R H T M E Q A L A G V D A D T H L H V S S F D I D V F L D P E V I A P G V	R L G M A H V M E E A I A H V T K G T D G V H L S S F D I D A L D P L E A P G V	E R G M R T V M E E A L R A A G R G T A G Y H V S S F D I D M D W I D P E D A P G V	K Y G I G Q V V D M A L N K I N P D R D C P I H L S S Y D V D A I D P S F V P A T	K Y G I A K V V E M A L A K V N P S G T P V H V S S Y D V D A I D P L Y T P A T	R R P V H E V V A R L V E R V G D A P L Y V V S S V D I D V L D P A H A P G T	E M G M K R T M E A A L D G V D A D T H L H V S S F D I D F L D P S I I A P G V	L T G L T G A E I K L K A R V G D R P V Y V S S V D I D V L D P A F A P G T	E E G M G S I V K R I L A D V R Q A D A L H V S S F D I D F L D P D V A P G V	E V G M R E T M E Q A L A G V A S D T H L H V S S F D I D F L D P E I I A P G V	R Y G I G R V V M E M A L A H I G T D T P I H L S S F D I D A L D P M W A P S T	R R G V D E V A D Q L R Q R I G D R P L Y V V S S V D I D V L D P A H A P G T	G L G S E G I V Q R I R E R V G D A P V Y V V S S V D I D V L D P A H A P G T	E V G M K Q A M E Q A L A G L D A D T H L H V S S F D I D F L D P E I I A P G T	E F G V G V L I R R V I D K V R A A D G V L H V S S F D I D F L D P A V A P G V	L W G R Q L H N M G A E I R R D I G T R P V Y I V S Y D I D S L D P A F A P G T	R M G M P E V I D D K A I E I A S A G T E G I H V S S F D I D F L D P E I S A P G T	K Y G I G K V V E M A L A D K V N P N R N C P V H L S S Y D V D A I D P S F V P A T	E I G M R R T M V R A L A G V D E H T H L H V S S F D I D F L D P L D A P G V	Y R S L A P L M A E V R E Q M G D G P V Y I V T F D I D G L D P S V I A P G T	E M G M R H T M E M A L A L D A Q T H L H V S S F D I D F L D P D I A P G V	M K S L V P L M G E V R Q Q M G G K P I Y L V S S F D I D A L D P A Y A P G T	Y K S V A P I M D E V R A K L G D G P V Y L S S F D I D G L D P S F A P P G T	E V G M R Q T M E K A L A G L N D N V H L H V S S F D I D F L D P E I I A P G V	I D G L A L T V I E R M R A R L G E A P V Y V S S V D I D V L D P A H A P G T	D M G V A G V V K Q R D R V G Q H P I Y L V S S F D I D V L D P A F A P G T	K Y G I N A V V E M A M K H P E T N G E G P I M C S Y D V D G V D P L Y I P A T	E V G M K R A M E E A L A G V D D E T H I H V S S F D I D F L D P V I A P G V	U R I G V D G V I E R V I E R V G D H P V Y V S S V D I D V L D P A F A P G T	Q L G I T R I H E E V M E R L R G G V D A L H V S S F D I D A L D P S V I A P G V	R H G I G K V M E M A L G H L G N D T P I H L S S F D I D A L D P T Y A P S T

QUERY	250	260	270	280
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UniRef90_G3XF5	G T P V I G G L T Y R E G G I Y I T E E I H N T G L S A I D L V E V N N P V L G A			
UniRef90_I7KJN7	G T P V V G G L T Y R E G V Y I T E H I C Q T G M L S A V D M V E V N N P K R G K			
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UniRef90_X8JR1H	G T P V R G G L T F R E G H Y I C E A I A E T G L L V G D I M E V N N P S L G S E			
UniRef90_F9DU00	G T P V P G G I T Y R E S H L A M E M L E S K L T S A E F V E V N N P V L D E			
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UniRef90_TODHS1	G T P V N G G V T Y R E G H L A M E M L S A S N A I V S V D V V E V N N P P I L D E			
UniRef90_F5SIG3	G T P V V G G I T Y R E S H L A M E M L A S A N V L T S A E F V E V N N P P I L D E			
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UniRef90_G6D7W0	G T P V R G G L T L R E A I K L M E I H A T G R I T R A F D L V E I N P P A L G N			
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UniRef90_UPI00023768D4	A T T V P G G P T Y R E A Q C M E M I A D S G R L A S L D I V E L N P P A L D E	E		
UniRef90_R9AE79	G T P V R G G L T F R E G H Y I C E A L H Q T G L L V A V D L M E V N P T L D V			
UniRef90_UPI0003F8DB79	G T P V I G G P S Y R E T H L A M E M L A E K G I I T S A E F V E V N N P P I L D V			
UniRef90_S6E776	G T P V R G G L T L R E A L F L V E R L A E T G K L I V A L D V V E V N N P Q L A T			
UniRef90_K1QRW5	G T P V P G G L S I R E G N Y I C E E L A A T G R L T C V D I A E V N N P S S L G			
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UniRef90_F7Z1H0	G T P V Y G G L H F R E S R L A M E I L D H A N A V S A D V V E V N N P I L D S S			
UniRef90_W1QJ25	G T P V R G G L S L R E G L F L V E E I A A T G N L A G L D I V E V N N P A L A S			
UniRef90_UPI0002EB9836	G T R V L V G G L T Y R E S H F A L E L H K S N L I T S M D L V V E V N N P P L I D			
UniRef90_C7QIS6	G T P E A G G M T S R E L L E I L R G L D G L N L V G A D V V E V A P P Y D H			
UniRef90_B7AA69	G T P V P G G L S Y R E A H L M E I L A L S G R V R S L D V V E V N N P I L D E			
UniRef90_F6EGA1	G T P E A G G G L T S R E L L L Q T L R G L T D M N I V G A D I V E V A P A Y D H			
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UniRef90_UPI00046682CA	G T P V P G G L N Y R E A H F A L E L L A S T N R V T S M D L V E V N N P L F D Q			
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UniRef90_H3BG15	G T P E I A G L T P Q G A L E I R G C R G L N V G C D L V E V C N P S L G V			
UniRef90_K0KNW1	G T P V R G G L T L R E G F V A E R V A E T G K L I V G C D L V E V C N P S L G V			
UniRef90_A4AEJ9	G T P E A G G M T S R E L L L A M L R A L R N V N I V G A D V V E V A P A Y D H			
UniRef90_X0PST1	G T P E A G G M T S R E L L L D I R G F D G L N V G A D V V E V S P A Y D H			
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QUERY

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290 300 310

T P E E	V T R T	V N T A	V A	I T L A	C F G	L A R E G N	H K P I D Y L
T S E E	V K A T A N L	A V D	D V I A S C	F G Q T	T R E G A	H T R A D T I	
N Q E A	V E A T A S L	A V D	D V I A S C	S L G Q T	T R E G A	H A S I	
S D E E	I R A T V N L A	I D I	T T A S L G	G Q T	R E G S	H C G I D E L	
T E E E	I S S T V N T A	V D L I	I R G C	F G K	L R E G N H	P A D Y	
T E E H	A I Q S T V S T A	V D L L	L G C	F G R R	R E G N H	P A D F I	
S E E E	V K A T A G L A	V D V I	A S S L G	G Q T	T R E G G H	I V Y D Q L	
T K F E	Q N V T V N T A	V D V L	T A A L G	K R R H	G N I	P T G Y V	
S Q E E	V N A T A S L A	V D V I A T C	F G Q T	R E G A H	T A F D E L		
	K N T T A N V A V A	V A L M G S	L F G				
T D A D	V S A T V A V G C	S L A R S A	L G				
	Y N K T A D V A V A	V A L M G S	L F G				
	K N R T A D V A V A	V A L M G S	L F G				
	K N Q T A E A A V G	L I G S	L F G				
	R N K T A D V A V G	L M G S	L F G				
D E A E	V K Q T V A V G C	S L A R S A	L G				
	K N K T A T V A V G	L M G S	L F G				
S E R D	V K N T V E A A I H	I I Q A A L G Y	T R R G L R V P				
	Q N R T A L M A V E	L V E S L	F G K T				
G	N R T A K A A V A	L I G S	V F G				
	R N K T A E V A V E	L M G S	L F G				
	K N K T A T L A V E	L M G S	L F G				
	R N Q T G R M A V E	L V E S L	F G K R				
	K N K T A S V A V A	L M G S	L F G				
D	S D R K R T I E A G M S	V M M A A L	G F S R R G				
	K N K T G K T A V E	L V E S L	L L G K K				
	M N K T A R V A V A	L M G S V	V F G				
N	N R T A K S A D L	A G S L	L G E R				
	K N K T A V A A V A	L M G S	L F G				
	A N K T A K L A V E	L T L S A	L G K S				
	L R N R T A E L L A V	D L V E S L	F G K S				
D E R A V K Q T V S V G C	S L V R S A	L G					
	K N Q T A E A A V A	L I G S	L F G				
D D V H V V D T I N A G C A	L A R C A	L G					
N E R D N L I T V N S A L S	S I T H C F G G	R Q G T Y	P K N Y				
R G K S	A R I M V E	M T A S L	F G G	R R I	F D R P T		
	R N Q T A E K A V R	L I E T L	F G K K				
T E T H	I V D T V N A G L S I	A R C A	L G				
	M M N H T A E Q A V S L	V G S F	F F G				
A E I T	S V A A A H V A Y D L	V T L L A	M Q G R				
	K N R T A L M M V G L	A L S L	L G K R				
A E I T	G I A A A H V A Y E L	L L S V L A	L N R				
N K Y D	V Q Q L T I G A A I H	I I Q A G F G Y	S R R G L R V P				
	V N R T G D L A V E	L V A S A	L G E R				
	Y N K T A R L A I V G L	M G S F	F F G				
A E I T	S V A A A H V A Y E L	L A S S	L L G K K				
T P E D	V R R T V D A A V H	L L V A A C G H	S R R K G D				
	Q N K T A E L A V G L	I S S A F G Q K					
N	N C T A E Q A V S L	L L G T F	F F G				
	N R T G E L A A N L I A S A L G H R						
	R N Q T A E L V V E L	V E S L	F G K S				
A Q I T	T A T A A A H V A Y D L V	S L L A	T A K K D R				
N	R H T A R L G V E L I A S M L	G K R					
G D I T	S I L A A N L A F E L L S	S L M A V R R A R R					
	G T G A Q L T V D M A L L I	S S A L G N R					
S G N T A L T A A N L L F E M L	C I L						
N E T H	V V D T I T A G C A V A R C A	L G					
A Q I T A I A A S H V A Y E L I S A M							
A E I T	G V A A A N L L A Y E F T S	L L					
Q K R T	V R L A I G L I G S	L L G					
R N R T A E V A V D L I E S L	F G K S T	M R K Q P					
K N I T A E A A V A	V A L I G S	L F G Q K					
H	N R T A D L A V E L A C S A	F G K K					
N D N H	V L D T V S A A C A I G R C A	L G Q T					
Q D T H	H A L D T V S A G C A I A R C A	L G					
A E I T	T A V A A A N V A Y E F V S L F A	L G R					
	R N L T A E L A V D L V E S L	F G K S					
A D I T	G I A A A H V G Y E I L S A			R R I	L D R P T		
R G R S	A R V M V E L A A S L	L F G					
	L R N T T A E L A V D L V E S L	F G K S					
N D H G A H E T V R A G C S	L V R C A	L G					
A E I T	T S V A A S H T A Y E L T T L	M A R Q					
A E I T	A I A A A N V T W E F L S V F G R K A R						
	R N R T A E L A V D L V E S L	F G K S					
R G	R T A R T A V E L I G S L	F G Q Q I T D R P T P S N A I					
T G N T A L T A A N L L Y E M M C V L P G V K S R							
	R N K T G E L A M E L T L S M L	G K V					
T E E H	V L D T V S A A C A I G R C A	L G Q T					
	N A T A E L A V D L A E S L F G K S						
S G N T A L M G A T L L Y E M L C V L P G V M R R							
	R N Q T A E V A V E L I A S L F G K S						
S G N T A L L A A N L L F E M L C I L							
S G N T A L V G A N L L Y E M L C V L							
A E I I	T G I A A A H V A Y E L M S V L A T K P G						
A E I I	T A L A A A N L L A Y E L I S L M A T S S A K						
H D I H	V S N T I S A G C A I A R C A	L G					
N D I G A H E T V R A G C S L V R C A L G							

D A A F I | G V P | L D T G T S R P G A R F G P R H | I R G E S C M V | R R Y N | S
D V A I V G I | P M D | G T S R S G T R F G P K E | V R A E S S A M I | R P Y N | N M G
A D I V V A G V P | F D A G S Y R P G A R F A P A | H V R E S S R | L L R P Y | H P G
T Q H I R L I G A P T D V G A G T R G A S M G P E | A F R V I A G L Q P T | L E G H G
R R V A L L G V P | L E I G A G G L R G T L M G P A | A L R T A G I | G R L L E Q | L R
A F V G V P F D L G T S R V G T R Y G P | R A I R A E S V L L R P Y | N M A
A D V A V L G V P | F D G G S Y R P G A R F G P | G H V R E S S R | L L R Q Y | N P A
K R I H V L R V P F G L G A G R P G T E R G P E | A I W K S G L | D Q M M E E | I G
K N M S I V L A P F S G G Q P L S G V E | L G P D Y | L K Q G L Q Q D M E K | L G
T V A L I G A P T D V G A G V R G V N | G P D A L R | I A D I D K A I | E Q Y G
D A A F I G V P | L D I G T S R S G T R F G P R Q | L R S E S V M I R P Y | N M A
V R V L G V P M D L G A D R R G V D M G P S A | I R Y G G L A D Q | L S D | L G
D A A F I G V P | L D I G T S R S G A R M G P R Q | I R A E S S A L L R P Y | N M A
F V G V P M D S G N R P G T R F G P K Q | I R A E S S V M L R P Y | N M W
S L G I V G A A V D K G Q T K D G V Q N G P R E | I R E C | G L K V L L N K | L G
D A A F I G V P | L D I G T S R S R N G T R Y G P R Q | I R Q E S S V M L R P Y | N M G
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UniRef90_UP10002FCF60D	V N Y K D Y G N I D I E N E N K K D P K T N L K N L K E V T N G N Q K I A D E L			
UniRef90_B2GDX0	Q N H S P F A N L Q V A D	G D I V G N P F D I P E A I D S I E T A A		
UniRef90_F5SH81	P Y L R R E L S E V N Y Y D A G D L P L P F G N P E K S T E A I G E F V			
UniRef90_L9WAP2	V D P I D A G D L D I P R A E E R D P D P A G G P N R G N V E D V C T R L S D R V			
UniRef90_Q07N69	L A V E D H G D V A V A P E L D D P P P A N A R Q Y R E I Q R W T R A V S A A A			
UniRef90_W7YP19	Y E V S Y D K R I L L P E H I E I A A N I S S P M K H E A E A I A I S L A R E V			
UniRef90_UP1000371BDD6	L D A F P F A H H Q V A D V G N L A V T P F G I E R A V S A M I D G L			
UniRef90_A8MXK3	H T L Y D L G D L V I P V A S E E D Q F K G H E N I K Y I T E V N T N L A H Q V V			
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UniRef90_UP100037518B	T G A R P F E S L Q V A D I	G D V A I N T Y D L K T V G I I E A A Y		
UniRef90_UP1000366372E	S G T E P Y S I A N I A D V	G D L S V N P I N L M D G L S R I I E A G I		
UniRef90_Q0UYW2	L E M N V S Y D G T V H N Y S E L L P S D D P D Y R G M A S A V T Q S V S A Q V			
UniRef90_C1AEL9	L S V T D E G N V R V P D R S E E V P S S P L G R I G A I A L V A A E L A A R T			
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UniRef90_UP1000225FD02	T G V A P Y E R L A V A D G D L V V Q P I D L M A A L E Q I E A G I			
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UniRef90_E4NLL6	V S T E D A G D L A V P H H A I H D A G E N A K H I N E V I E V T T A L A D A V			
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UniRef90_UP1000369A705	R T V L D A G D L C G P A N P Q G P V Q Q A G Y R H L D E V I A W N R S V H E A T			
UniRef90_F1YGW5	L G V E P F A A Q Q V V D A G D L A L N P F D I P A A L T A V Q T G V			
UniRef90_I2DS95	T R A A P F D S L Q V A D I G D V A I N P Y N L H D S I A R I I E A A Y			
UniRef90_U2E6X7	F D V C D L G N I K V N D D H I Y R C D Q K L F Y D V V D A N T K L I A F K V			
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UniRef90_G7LUS6	T G A A P F D S L Q V G Q D G D V P I N T Y S L L K S V D I E D Y Y Y			
UniRef90_F7QQL9	F T V E D H G D I L R R E L T F T D P P P N A K H Y R E I K A W T G E T A Q R A			
UniRef90_UP1000382104A	T G A A P F D G L N L A D G D V A I N T F S L S E T I R I V E N S Y			
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UniRef90_R7PJ94	M Q V N I M D G L K G G D I G D F N V T P G Y I H P T Y Q A I I E E G V			
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UniRef90_M7Y8T5	H A V T D G G D V V P D G Q A A A R G L E A V G A W T R A L S R A V			
UniRef90_S3H8B4	H R V S D V G N L S S R A F D E I H P N S A V H H L G E T V A W I E A I S A S A			
UniRef90_A0A024HN44	P W E F D P F D H L A V I D Y G D C A F D H G T P Q D T P A A I Q A H A			
UniRef90_B9R3R5	M G V D L R E Q M T L L C D V G D V F T I P A N L E K T F D Q T R A V			
UniRef90_V6M624	Q A I N V F D Y V S G V D Y G D I Q V V P G Y I I Q D T Y E K M E E G L			
UniRef90_A0A017SDG1	D G K V H Y Y E D V T P A A D A D P D H R G M K K P R A V S A V T Q K L I S S Q V			
UniRef90_UP10003649C9	L E I D L F N Y C S G V D Y G D L S V N P G Y I E E S Y Q L I A A Q L			
UniRef90_I4YT69	Y Q V E D R G N I A P R P L R E L R H P N V A I K A L A E T V A W T E A I A E A			
UniRef90_UP100036720B7	L D I D L S A D F K I A D F G D I D V I H T D V L E T H K R I E K V I			

	90	100	110	120
UniRef90_Q5HZU7	Q K I M A A G C □ P L T L G G D H T I T Y P □ L Q A V A E K H G P V G L V H D			
UniRef90_Q164F5	H A I L N Y D A M P L A I V G G D H S I T L P I L R A M H K R H G P V A L V H V D			
UniRef90_UP10004777DFE	R E L T A D G T R L L T V G G D H T I T L P I L R A A K A Q H G E I A L L H F D			
UniRef90_S6GDZ3	D V L N D C N I K P L S I G G D H T I T L P I L R S L Y K K H G K I A L I H V D			
UniRef90_A1VTU0	H A A L S E G E M P M L L G G D H C L A I G S I S A V A R H C R R L R V L W L D			
UniRef90_Q13CK1	Y E L L A Q S G A V P L F M G G D H S L S M G S V N G V A R Y W K P L F V L W L D			
UniRef90_E9C2L5	S D N L Q H N C V P M T L G G D H T I T L P I L R A V T A R H G P V A V V H F D			
UniRef90_E3J461	R E L L D G G A R L L T I G G D H T I T L P I L R A V T A R H G P V A V V H F D			
UniRef90_UP100035EAB4C	A A A I A G R G D F P L I V G G D H S I S I G T L A G L A R S G R K L G L I W F D			
UniRef90_A44MH0	R K V A E Q G R F P L T V G G D H H S I A V G T V A G V L S V Y P D T G V I W V D			
UniRef90_D5V999	Y D E L K N G N F P I L M G G D H C S L T A V A R H C R E Q G K K L R I L W L D			
UniRef90_H0JHV0	D Q V L E H D V I P L T L G G D H T I T L P I L R A M K K Y G K I G L V H V D			
UniRef90_Q5V4R8	D A T L R E G R F P L V L G G D H S I G I G T V A G A A R E D E E L G V I W F D			
UniRef90_UP10003483649	R P V L A A G C M P L T L G G D H T I A L P I L R A V A E R H G P V A L V H V D			
UniRef90_D5BN64	D D V L T H D V I P L S I L G G D H T M T L P I L R S M A K K H G P V G L I H V D			
UniRef90_W6U866	A K S V S E N D M T L I L G G D H T I T L P I L R A M R A R Y G P V S F V V W V D			
UniRef90_U2NC78	N L L I Q H H C V P L A M G G D H T I T L P I L R A M R A R Y G P V G L I H V D			
UniRef90_I2GYR4	T D S L K D D K F I L T L G G D H S I A M G S I S A V A L E K Y D D L C L L W I D			
UniRef90_H8L616	Y D E L S L G R L P I M L G G D H C L A M G S I S A V A R H C R E L R I L W L D			
UniRef90_G0QWW2	K Q S S Q K S N F P L L L G G D H S I G I A T G T I S G M L E T Y E N L K K V I W I D			
UniRef90_S9X1G6	K S V A E Q G R F P L L L G G D H S I S I P I L K A L A S D G P L G M V H F D			
UniRef90_K2M5A9	A K L K S K G □ T P L S A G G D H L L S Y P I L K A L A S D G P L G M V H F D			
UniRef90_W9X7S2	Y E Q A R H G R M V L T L G G D H S I V A I G T I A G T A N G R K E I A V I W V D			
UniRef90_UP100029A7782	T A I V E V S G S L L V S I G G D H S I S I P L R A H A K K H G P M A V H F D			
UniRef90_S7URP5	H E A A M M R G E T P L V L G G D H S I A G I A G L A K A R G R L G V I W D			
UniRef90_UP10002FCF60D	K K I K S K G D F P L I L G G D H S I A I G T I A G L Y N Y Y N E L G V I W F D			
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UniRef90_F5SH81	D R I I Q Q K K M P L G I G G E H V T W P V R T L Y K T H R E L A V I H L D			
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UniRef90_W7YP19	A D T V R Q G G T P L I L G G D H S I I S M G T L S G L T Q H Y R E L G V I W F D			
UniRef90_UP1000371BDD6	S E A R E R S G K L V V L G G D H S I T A Y P S I K T L A A R H G P I S V L H F D			
UniRef90_A8MXK3	Y C S L E G E S F P F V G G D H S I L G M G S I S A G I S K H F N E V A V I W D			
UniRef90_Q0W831	S D A I T D G Y F P L V I G G D H S I I A M G T T A A L S K H Y K K I G M I W D			
UniRef90_UP10003616D65	L E L L T R E G A S L V A L G G D H S I I A L P I L R A A A A R A G A P V A L L H F D			
UniRef90_UP100037518B	D A I L A L H G P V P L T L G G D H S I T T Y P I L K A V A K V H G P V A L L H F D			
UniRef90_UP1000366372E	A E I V A A G A I P L S V G G D H S I I T T L P I V L R A V A K T R P V G L I H F D			
UniRef90_Q0UYW2	Y A H A V S G K M V L T L G G D H S I I A I G T I I S G T A K A G R E I A V I W V D			
UniRef90_C1AEI9	A N A V R H G T C P L V I G G D H S I I S V G S V A V L A E R G E R V G L I W F D			
UniRef90_L0IBC2	E E T L A L E G F F P L V L G G D H S I I S T M H G A S R D A D L G V V W F D			
UniRef90_Q6WVP6	E E L L M K Q S N K H T V V G G D H S I I S M A T G T I L H A E A K P D L C V L W D			
UniRef90_Q1LGD2	Y Q A L A T G Q L P L L M G G D H C L A I I G A A R Y C H R E Q G K K L L V L W D			
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UniRef90_K6XEV7	R A T L D T C G R I L T I G G D H S I I T I A L P I L R V L H E A H G P V A V L H F D			
UniRef90_M0CEW9	A A T R A D G E F P L V L G G D H S I I S V A I G S L T G S A R D V D L G V I W F D			
UniRef90_UP10003629F18	S P L L E K E I T P V P V M M G G D H S I I S I S L G H L R A F A K K Y G P I T L I H F D			
UniRef90_S9QC72	D D L L K H D V I P M T I G G D H S I I T I T L P I L R A I A K K H G P V G L V H F D			
UniRef90_E4NLL6	A D A L S D E V T P L V L G G D H S I I S V A I G S M V G S A R D V D L G V I W F D			
UniRef90_Q164F4	S T I L A A D V P T V T L G G D H S I I Y Y P I L K A Y A E K Y G P I S L L Q F D			
UniRef90_A1W2M6	H A A L Q A G Q L P L L M G G D H C L A I I G S I S A V A Q H C R R L R V L W F D			
UniRef90_C5FS58	Y G H A R E G K M V L T L G G D H S I I A I G T V S G T A K A G R E M A V I W V D			
UniRef90_UP1000369A705	L A S L R A G Q L P V L L G G D H S I I V A I I G S I S A V A R H C R R L R V L W D			
UniRef90_F1YGW5	S A L R R M G L R V V T L G G D H S I I H T I A L P I L R S L A T D G G P V A V V H F D			
UniRef90_I2DS95	D A I L A Q D C K P I V L G G D H S I I H T I A L P I L R A I H R K H G K V A L L H V D			
UniRef90_U2E6X7	Y D S I I S S G H F P L V L G G D H S I I S L G I G S I A G V S K Q Y K N L G V V W I D			
UniRef90_A0A021X7H5	R T V I E A G A L P L A V G G D H S I I H L T T L P I V L R A V A A S G P V G L I H F D			
UniRef90_UP1000471B1B6	D G V A A A G I L P P L S A G G D H S I I I S L G I G S I I P L K A L A K V H G P L A M V H F D			
UniRef90_G7LUS6	T A L L N D W P L I P L S V L G G D H S I I H T I T L P I L R A L T K K H G P V G L I H V D			
UniRef90_F7QQL9	Y A M A K S G A I P P V F L L G G D H S I I S L S M G S V R H W H A Q G R E L F V L W L D			
UniRef90_UP1000382104A	D R I I L R H P L I P L T L G G D H S I I H T I T L P I V L R A V A K V H G P V A L V H F D			
UniRef90_C1B4Y9	S E I I L G R D R K I V S I G G D H S I I H T I A L P N R A L H A K H G P I A L V H F D			
UniRef90_R7PJ94	A G I I L K E N A C P I V L G G D H S I I H T I A L A E L R A A K Y G P V A L V H F D			
UniRef90_W8IH65	D G I I L K F D C K P I V L G G D H S I I H T I T L P I L Q A M A R K Y G P V G L I H F D			
UniRef90_UP100039D2342	R S L I A A G P Q M P I Y M G G D H S I I H A L A L G T A A H A A G A G R P Q F V L W L D			
UniRef90_UP1000375BE4F	A E I L A L S G A K M L T F G G D H S I I H F V A Y P L I K A H A E K Y G P V A L I Q F D			
UniRef90_A1SLP1	Y A V A R S R G A V P L V L G G D H S I I H S I I A L P D A T G V A R H F G R V S M I H F D			
UniRef90_F5Y5Z9	D A A L G Q Q G E F P L L M G G D H C L A I I G S I S A V A W H C R R L R V I W D			
UniRef90_N4VBA6	S S S L S K P K L I T L G G D H S I I S L A L P A L R A L K E A Y G P L R V I H F D			
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UniRef90_B7GCN5	A H I I A S T G T M P I I L G G D H S I I H G F P T V R G L A V T T K N I G I I I H V D			
UniRef90_UP1000408BBFC	D Q I I T D G K F P L G I G G E H L V S W P L I R A M H K E Y D D L A V I H F D			
UniRef90_R5U643	E I I I L S S G S K I P F M I G G E H L V T L G S V R A A A K Y P D L H I I I H F D			
UniRef90_UP10003769E95	E R I I A R A G V I P L A M G G D H S I I H G E L R G L A Q V Y G P L A L L I H F D			
UniRef90_UP100029A745A	E Q M L E A G C A M A L T L G G D H S I I H F I I S Y P I L K A H A R K H G P L A L L I H F D			
UniRef90_U7PHR7	S A T V L L Q R P K L I T L G G D H S I I H S L A L P A L R A L H A A Y G Q L R V I H F D			
UniRef90_B7Q902	A K V L L S S G S L S L N I G G D H S I I H T M S I G T V I A H A M S H L G M E I I G Y V E D			
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UniRef90_D5V529	E K V V E A G V L P I S A G G D H S I I H S L P I L R A L A K D E P V A L V H F D			
UniRef90_M7Y8T5	E A A L D D V G A L P L V A G G D H S S I D G V M R H C A R R G R A L F V L W L D			
UniRef90_S3H8B4	Y E H S Q H S M P I F L G G D H S I I H A I I S A G T V A G L A K R N R P L F V L W L D			
UniRef90_A0A024HN44	U R I I L D A G C G L I T L G G D H S I I H F I I S Y P L K A H A K H G P L S L I H F D			
UniRef90_B9R3R5	S H V A V A S S G A L P I M I G G D H S I I H G F P C V R G I A Q C T K R I G I I V H F D			
UniRef90_V6M624	T P V V Q Q G I P I V L G G D H S I I H S L P I L R A L R V I A N R H G P V A L L Q F D			
UniRef90_A0A017SDG1	Y E H A R E G K F V L T L G G D H S I I H S L P I L R A I V A K Q Y G K V S L I H F D			
UniRef90_UP10003649C9	E P I L L N N V I P V L I G G D H S I I H S L P I L R A I V A K Q Y G K V S L I H F D			
UniRef90_I4YT69	A Y R A A G D G M P I F A G G D H S I I H S L P I L R A I V A K Q Y G K V S L I H F D			
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130 140 150 160

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UniRef90_UP10004777DFE	A H L D T W D T Y F G A D Y T H G T P F R R A F E E G I L D T E A L C H L G T		
UniRef90_S6GDZ3	A H A D V N N S M F G E S I T H G T I F R R A I E E G L I D G N K M T Q I G L		
UniRef90_A1VTU0	A H T D F N T D A L T P T G N T H G M P V A V L C G H G P A E L T G I G G		
UniRef90_Q13CK1	A H A D Y N T P T T T L T A N M H G M S A A F L C G E P G L D D I L L G D A		
UniRef90_E9C2L5	A H S D T N D V M K G E K A H G T T F R R C V E E G L		
UniRef90_E3J461	A H L D T W D T Y F G A A Y T H G T P F R R A A E E G L I D P E A S M H L G I		
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UniRef90_A4MH0	A H A D I N T M S G T V S G N L H G C P L S I L L G L D R E N I P E C F S W		
UniRef90_D5V999	A H A D F N T S E M T P S G N I H G M P V A C A C G F G P D E L T T I G G		
UniRef90_H0JHV0	A H A D V N E H M F G E K I A H G T T F R R A V E E G L		
UniRef90_Q5V4R8	A H G D F N T P A T T P S G N I H G M S L A A V L G L G A F S D H A W A H		
UniRef90_UP10003483649	A H A D V N D T M F G E R I A H G T P F R R A V E E G L		
UniRef90_D5BN64	A H A D I N E H M F G E E I A H G T P F R R A W E E K L		
UniRef90_W6U866	A H P D L N T P E S S N S G N T H G M P L S F L L T E T S R L I P Q T Q G F E N		
UniRef90_U2NC78	A H S D T N E E M F G E K L A H G T T F R R A H E E G L		
UniRef90_I2GYR4	A H A D I N T V E S T E S G N L H G C P V S F L M G V N P P D K I P K S L S W		
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UniRef90_S9X1G6	A H S D I N T M T G T E S G H L H G C P V S V L M G L D K E N I P D S L K W		
UniRef90_K2M5A9	A H T D L F D S Y F N G F K Y T H G T P F R R A I E D G		
UniRef90_W9X7S2	A H A D I N T P E T S E S G N I H G M P V A F T G L A H S D D K D F G W L Q		
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UniRef90_S7URP5	A H A D A N T P Q T S P S G N I H G M P L A I S L S G H G Y P D L V N C L G F A		
UniRef90_UP10002FCF60D	A H A D I N S G E T S P S G N I H G M S L A A S L G V G H K N L T S I N G		
UniRef90_B2GDX0	A H L D T W D T Y F G A E Y T H G T P F R R A F E E G I I D T D A V M H V G T		
UniRef90_F5SH81	A H A D L R T D Y E G E S L S H A T P L R K I V E L		
UniRef90_L9WAP2	A H A D L N T P E T S P S G N V H G M P L A A T L G H G A F A E M E W A T		
UniRef90_Q07N69	A H A D Y N T P E T T V T G N M H G M S A A F L C G E P G L D R L L G D E		
UniRef90_W7YPI9	A H S D L N T E A T S P S G N M H G I S L A V A L G L A G I K P Q E I A S		
UniRef90_UP1000371BDD6	A H I D T F G T Y F G A A L H H G A P F R R A A E E G L L D P E G C M H V G I		
UniRef90_A8MXK3	A H S D I N T H L T S P S G N P H G M P L A A S M G V G H P K F T D I Y F		
UniRef90_Q0W831	A H G D F N T E E T T I S G N I H G M S F A T S V G R G T K A L V G K M		
UniRef90_UP10003616D65	A H L D T W D S Y F G A D Y T H G T P F R R A V E E G I I D T D A L C H V G T		
UniRef90_UP100037518B	A H A D I N D L M F G E T I G H G T P F R R A Y E D G		
UniRef90_UP1000366372E	A H S D T N D T Y F G D N P Y T H G T P F P R R A I E E G L		
UniRef90_Q0UYW2	A H A D I N T P E T S D S G N I H G M P V S F L T G L A K E G R E D V F G W I K		
UniRef90_C1AEL9	A H A D I N T P D T T L T G N V H G M P V A H L L G L G D E R L S R L A S		
UniRef90_L0IBC2	A H A D L N T P S T S P S G N V H G M P L A A A L G Y D E F A D W D W A N		
UniRef90_Q6WVP6	A H G D I N T P L N S A S G N M H G M P L S F L V K E L Q D Q I P W L D D F E G		
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UniRef90_UP1000225FD02	A H S D T N D S Y F G D N P Y T H G T P F R R A I E E G		
UniRef90_K6XEV7	A H L D T W D T Y F G A A Y T H G T P F R R A S E E G L I D K T G S M H V G I		
UniRef90_M0CEW9	A H A D L N T P E T S P T G N V H G M P L A A V L G H G A F G E M D W A P		
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UniRef90_S9QC72	A H A D V N D E M F G E R E T H G T V F R R A Y E E G L		
UniRef90_E4NLL6	A H G D F N T P E T S P S G N V H G M P L A A A L G I G D F E G V E W A N		
UniRef90_Q164F4	A H S D S W P D D E E S R V V D H G T F V Y K A I K Q G		
UniRef90_A1W2M6	A H A D A N T P E S S P S G N L H G M P V A C L L G H G P A Q L T R L A G P E		
UniRef90_C5FS58	A H A D L N R P E E S S E S S G N V H G M P V S F L T G L A K D D R E D V F G W L K		
UniRef90_UP1000369A705	A H A D V N V G E T T P S G N L H G M P V S C L C G L G P E A L T T L G G		
UniRef90_F1YGW5	A H L D T W D T Y F G A P F T H G T P F R R A A E E G L L D L N R C V H V G T		
UniRef90_I2DS95	A H A D V N D T M M G E K I A H G T P F P R R A V E E G L L H G D K V T Q I G L		
UniRef90_U2E6X7	A H G D L N T H E T S E T G N I H G M P L A A S I G K G P D K L V N L F E H R I		
UniRef90_A0A021X7H5	A H S D T N D T Y F G D N P Y T H G T P F R R A I E E S L		
UniRef90_UP1000471B1B6	A H C D T G S E L F G H K H H G G P F R V A A E E G		
UniRef90_G7LUS6	A H T D T N D E M F G E K I A H G T T F R R A V E E G L		
UniRef90_F7QQL9	A H A D Y N T P A T T I T G N M H G M S G A F L C G E P G L D D L L P R A		
UniRef90_UP1000382104A	A H A D I N D E M F G M R E C H G T V F R R A R E E G L V D P R K T W Q I G L		
UniRef90_C1B4Y9	A H L D T W D T Y F S Q P V T H G T I F R R A F E E G L L V E D H S I H V G I		
UniRef90_R7PJ94	A H S D L N T C D E V F G Q K Y N H G T P F P R R A L E E N L M D A S H S I Q V G M		
UniRef90_W8IH65	A H A D I N D Q Q F G E T I A H G T P F R R A V E E G L		
UniRef90_UP100039D2342	A H S D I N T F E S T V I S G N L H G T P V A F A C G L P G F D V L L G E K		
UniRef90_UP1000375BE4F	A H C D T W A D D P G R L D H G T M F L R A V E R E G		
UniRef90_A1SLP1	A H A D T G H I E F G S L Y R H G Q P M R R L I E S G A L R G D R F L Q M G L		
UniRef90_F5Y5Z9	A H T D V N T E A I S P S G N I H G M P V A C L L G H G P A S L V G W S G		
UniRef90_N4VBA6	A H L D T W H P E K Y P S Y W T S T Q F N H G S M F W M A G N E G L L S N		
UniRef90_UP1000422B207	A H T D T Y N N G S R Y D H G T M F Y H A P N E G L		
UniRef90_P14012	A H T D L H T I H T T A S G N L H G T P V A Y Y T G Q S G F E G L P P		
UniRef90_UP100047A9471	A H A D I N T P V T S L S G N V H G M P V A H L L G Y G H A P L A G L S A		
UniRef90_A9WLU5	A H L D T W D T Y F G A E Y T H G T P F R R A V E E G I L D T E A I S H V G T		
UniRef90_B2JW15	A H T D T W D S F K G K G S K F T H G A P F R R A V E E A G L		
UniRef90_R7TUF1	A H T D T Y T G P L N G F D W H G N P F R L A V E E G L L D C D K V W Q I G L		
UniRef90_B7GCN5	R H A D I Q E K D L D E R M H T T P Y F H A T N L		
UniRef90_UP1000408BBFC	A H A D L R E E Y E G E E L S H S T P I R K T C K L		
UniRef90_R5U643	A H A D L R E D Y L G V Q Y S H A C V L R R C W E L		
UniRef90_UP10003769E95	A H L D T L D Q Y F G R K Y N H G T P F R R A V E E G L		
UniRef90_UP100029A745A	A H S D T W P D E E G Q R V D H G T M F W H A A R E E G L		
UniRef90_U7PHR7	A H L D T W H P D K Y P S A W P S E Q S R Y N H G S M F W V A G Q E G L L T N		
UniRef90_B7Q902	N H T R T F L S D Y S L L G H I H G M P V A F L L R E M E P F L R K P E G M E W		
UniRef90_UP10002896EB5	A H G D I N T P E T S P S G N V H G M P L G A A M G F G D S S L T N L Y F		
UniRef90_D5V529	A H C D T G G D Y L G S K F H H G S P F R V A V E E G L		
UniRef90_M7Y8T5	A H A D F N T P E T S P S G N V H G M P L A A L C G E A G F P R L F A E P A P P		
UniRef90_S3H8B4	A H T D F H L E T T A S G N L H G T P V V A Y Y T G R A G F E G Y F P P		
UniRef90_A0A024HN44	A H S D T W P D E E V Q R I D H G T M F Y H A A R E E G L		
UniRef90_B9R3R5	R H I D I Q E K D L D E R M H T T P W F H A T D L V N V P A V N L		
UniRef90_V6M624	A H S D T W D S Y F G K K Y N H G T V F R R A I E E G L L D V S R S I Q I G M		
UniRef90_A0A017SDG1	A H A D I N I P E T S E S G N I H G M P M A F L T R L A R E E R E D I F G W L K		
UniRef90_UP100036F49C9	S H G D T W D S Y Y G K K Y T H G T M F R R A V E E G I V D P S K S I Q I G M		
UniRef90_I4YT69	S H P D F H T L A T T S T G N L H G V P M A Y A T G R E G F D G Y F P P		
UniRef90_UP100036720B7	A H L D V R K S H H G E V S S G T P F R R L M E E		

170 180 190 200

UniRef90_Q5HZU7	L D C K R V V Q I G I R S Y S A D P Y G F C R E Q G F R V V L A E D C W	
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UniRef90_UP10004777DFE	R G P L Y G K K D L R A T G Y S A K D F D R R F G F G I V T A A D V Y	
UniRef90_S6GDZ3	V S P A L Q P S A I R Q I G I R S V D A G E K R F V R E S G L E V F D M R Y I D	
UniRef90_A1VTU0	P R V P I P A S Q L D L F G I R S I D P L E K E L V R A R A I P V V D M R A I D	
UniRef90_Q13CK1	D T K R V V Q I G L R G Y A A D D F D W G R K Q G F R V V Q A E E C W	
UniRef90_E9C2L5	R G P V Y A R S D F D D T R L G F S V V T A P F V E	
UniRef90_E3J461	Q P K V T A E R T V I V G A R S L D A G E K A Y I R S A G I A C Y T M H D I D	
UniRef90_UP100035EAB4C	V P Q L L K P H K I A Y I G L R D V E E A E K K I L H D L N I A A F S M H H V D	
UniRef90_A44MH0	V R G A I S P K D V Y Q I G L R S V D A K E K Y F I N E K G V T V F D M R Y I D	
UniRef90_D5V999	V L D D C D R V V Q I G A Q G Y A A D D F D W C R E Q G F R V V Q A E E C W	
UniRef90_H0JHV0	T P A V S E V N V V I V G L R D V D D G E R R L I E E S D I T A Y T M S D I D	
UniRef90_Q5V4R8	L L Q G D K V W Q I G L R G Y A A D D F D W P R Q Q G F T V V P A H E V W	
UniRef90_UP10003483649	N P E R T Y Q I G L R G Y T A E D F D W A R D K G F S V T Q A E E L W	
UniRef90_D5BN64	I K P V L G A N Q L L I G L R D V D V P E L K F I K E L N I P H F N M H D V E	
UniRef90_W6U866	L L V P Q R V V Q I G L R G Y A A D D F D W S Q Q G F R V V S A Q A C W	
UniRef90_U2NC78	I K G N L K P N R I A Y I G L R D V D E G E K K I L K E N N I K A F S M Y H I D	
UniRef90_I2GYR4	F T P A V T P A Q F R Q I G L R S V D A G E K H L V R E A A I P I F D M R H I D	
UniRef90_H8L616	L K F K L K P E N I V F I G L R D L D E E E K D L N K N K I K C F C M H Q I D	
UniRef90_G0QWW2	V P H L L K P H K I A Y I G L R E V D E D E K D R L A E L N I A A F S M H H V D	
UniRef90_S9X1G6	Y L D P R R V V Q I G I R M Y D G E D V E W G L A Q G V R I I R M E E V I	
UniRef90_K2M5A9	U I R F R V V Q I G I R M Y D G E D V E W G L A Q G V R I I R M E E V I	
UniRef90_W9X7S2	E D Q K L S T T K L V Y I G L R D V D R G E K K I L R D H R I K A F S M H D I D	
UniRef90_UP100029A7782	R G P T N G P E D V V V I I G A K D V D P D E M A F V R E Q G V A L Y S T F D I E	
UniRef90_S7URP5	D G P K V K P E N T V I I G A R S I D E G E R K F I K G H G V Q V Y T M H D I E	
UniRef90_UP10002FCF60D	R G P L Y G T Q D L E D D A R F G F E I V S S A D V M	
UniRef90_F5SH81	L G P E N V Y Q F G I R S G T R E E F A Y A E R A K I H F H	
UniRef90_L9WAP2	A P R V R E S I A Y V G L R S I D E R E R E L V R E S E M T A F T M A D I D	
UniRef90_Q07N69	P R A S L P P Q R L E L F G V R A I D A L E R Q L V Q Q R K V G I A D M R R I D	
UniRef90_W7YP19	G A V P I K P E H C V I I G A R D L D R G E K A F I R S C G I T C F T M H E I D	
UniRef90_UP1000371BDD6	R G P L Y G P H D L S D R A L G F Q A V H S S E F S	
UniRef90_A8AMX3	K G Q K V H P K N V Y I I G V R D P D A G E L A L V D D L N L S Y Y S M K T V R	
UniRef90_Q0W831	G K T C V C E E N C V L I G A R D L D P L E R E A L K K S K V T V F T M R D I D	
UniRef90_UP10003616D65	R G P L Y G A E D L E D D R R L G F G I I T S A D V F	
UniRef90_UP1000373518B	C L Q P D K V F Q I G L R G Y S P K D F D W S R E K G F T V V P A E A C W	
UniRef90_UP1000366372E	L D P K R I V Q I G I R V Y D P S E H D W A R A Q G V R V I Y M E E F V	
UniRef90_Q0UYW2	E E H L L S T K K L V Y I G L R D I D K G E K K I L R E H G I K A F S M H D V D	
UniRef90_C1AEL9	V T P A V R A E H L V Y I G L R D L D E A E K H T I A Q L G I R A F T M R D I D	
UniRef90_L0IBC2	A P N V R E S V A Y V G L R S V D E K E R E A I R D S E M T A F T M A D I D	
UniRef90_Q6WVP6	I K P C L N A S N I A Y I G L R D L D A H E T H D I R K H G I A Y F T M L D V D	
UniRef90_Q1LGD2	V T P A T S P R N I R Q I G I R S V D A E E K K R L R G L T V Y D M R Y I D	
UniRef90_UP1000225FD02	V L D P R R V V Q I G I R V Y S A D E H Q W A K D Q G I R I I Y I E E C D	
UniRef90_K6XEV7	R G P L Y S R K D L T D D E V L G F Q V V G S H Q L D	
UniRef90_M0CEW9	A P G L R E S S V A Y V G L R S I D D R R E R D L L Q E S S L T A Y T M S D I D	
UniRef90_UP10003629F18	R G P L Y G P E D I Q A D L Q D A K D L G Y K V I S M R E A R	
UniRef90_S9QC72	L R P K D V Y Q I G L R G Y T A E D F D P R D W G F N L T L A Q E L W	
UniRef90_E4NLL6	A P R L K E N V A I V G L R D V D E N E T T A I Q D S D V T A Y T M S D I D	
UniRef90_Q164F4	I V D A A T S V Q V G I R T T N E D T L G V T T I D A R E V H	
UniRef90_A1W2M6	D P P A L Q P Q G Q I T L I G V R S V D A T E K R F V N E H G I E V Y D M R T I D	
UniRef90_C5FS58	E E H L I S T S K L V Y I A L R D V D R A E K K T L R E H G I K A F S M H D V D	
UniRef90_UP1000369A705	P P P A L Q P A E L R Q I G L R S V D P A E K L E L R Q L G I E A Y D M R F I D	
UniRef90_F1YGW5	R G P L Y S D H D L S D D E T L G F Q V P I P A D R Y E	
UniRef90_I2DS95	R G T Y G A A E D F D W C R D Q G F R V V Q A E A C W	
UniRef90_U2E6X7	K V K D E N V V H I A G R D L D P G E V A L I N N S K I N A F T M D K V Y	
UniRef90_A0A021X7H5	I D P R R T V Q I G I R I Y A P D E H D W A V K Q G I R I I Y M E E F V	
UniRef90_UP1000471B1B6	A L D P K R T I Q I G L R G P S E P L W Q Y S Y D S G M T V I H I E K L Y	
UniRef90_G7LUS6	L L D D C R R V V Q I G I G A Q G Y T S E D F Q W G I D Q G F R L I P A E Q C W	
UniRef90_F7QQL9	L R S P I A P R Q L G L R S V D R L E K E L L G Q R D V W I A D M R R I D	
UniRef90_UP1000382104A	R G T G Y S A D D F R E A A G W G F H I R Q A Q Q L W	
UniRef90_C1B4Y9	R G P I Y Q D A D L N D D A R M G F R I I R A G D L D	
UniRef90_R7PJ94	R G S L Y D P D E H K M A A E L G M K L I P A H K V R	
UniRef90_W8IH65	L D D C K R V V Q I G I R G Y A A E D F D W P R G Q G F R V V P A E D C W	
UniRef90_UP100039D2342	L D T P V S P G N I C L L G L R S V D P P E R A L I R E L G I T A H D M R A I D	
UniRef90_UP1000375BE4F	I V D A A H S V Q V G I R T Y N E S D F G F E I L S P W I H	
UniRef90_A1SLP1	R G Y W P G P E T L D W M A A Q H M R S Y E M T E I G	
UniRef90_F5Y5Z9	E R A A L E P Q D I D F I G I R S V D R D E K Q A I R Q L G Q V Y D M R H I D	
UniRef90_N4VBA6	T T S A P S V H A G L R T R L S G T D F S D H E D D T A Q N W V R I A A D D I D	
UniRef90_UP1000422B207	I D P K S S V Q I G I R T E Y K K G H F N V I N A M E A N	
UniRef90_P14012	L A A P V N P R N V S V S M M G I R S V D P E E R R R V A E I G V Q V A D M R V L D	
UniRef90_UP100047A9471	A S P A V L P E H L V Y V G L R D L D D A E K A F I R E L K I T A F T M R D I D	
UniRef90_A9WLU5	R G P L Y G K K D L E D D K R F F G F G I V T S S D V F	
UniRef90_B2JW15	L D P K R T I Q I G I R Q N S D E G W R Y S L D H G M R V V F I E E F D	
UniRef90_R7TUF1	R G P N V N A K N L V Q I G I W Q V P R P A V N M V E R T N I F T N D I E	
UniRef90_B7GCN5	S G H S A M D A K W Q G E R G F K A V P A F Q C W	
UniRef90_UP1000408BBFC	I G P E N V Y S F G I R S G M R E E F Q Y A K E S G M H	
UniRef90_R5U643	L G G D D R I Y Q F G I R S G D R E E F R W A R E G H V K M H K F N	
UniRef90_UP10003769E95	L Q P C V R K D N F A Y I A R N I D P Y E R F M D K L G I T L Y S M E D V D	
UniRef90_UP100029A745A	D G K K V N P K N V Y L I G A R D L D K G E T L L I E E G I N L Y S T V D V K	
UniRef90_U7PHR7	A T G A P S V H A G L R T R L T G D D F D Y Y D D D R Q N W V R L S A D D L D	
UniRef90_B7Q902	UniRef90_UP10002896EB5	I Q P C V R K D N F A Y I A R N I D P Y E R F M D K L G I T L Y S M E D V D
UniRef90_UP10002896EB5	D G K K V N P K N V Y L I G A R D L D K G E T L L I E E G I N L Y S T V D V K	
UniRef90_D5V529	L D P K K T I Q I G I R G S L N H M W K F S H D S G M R V I Y M D E F Y	
UniRef90_M7Y8T5	P L P P T S V H L F G L R S I D A G E R A L V T A R Q V G V T D M R T I D	
UniRef90_S3H8B4	L S N A V P S E N V C M M G I R S V D P A E L K A S V S A V T V H D M R A I D	
UniRef90_A0A024HN44	D V D P S R S V Q V G L R T T N D D V M G F Q V L D A R Q V H	
UniRef90_B9R3R5	V Q I G I G G W Q W V P R E G V E V A R E R N T N I F T M R D V E	
UniRef90_V6M624	R G G L Y G I E D L D D A R N L G L D V Y T T N Q Y K	
UniRef90_A0A017SDG1	D E H V I S T R K L V Y I G L R D V D R G E K K L L R E N N I K A F S M H D I D	
UniRef90_UP10003649C9	R G S L Y G P E D I Q A P I K P Q N V C M M G I R S V D P A E R S A L Q G A G V T V H D M R S I D	
UniRef90_I4YT69	P E R P L R P K N V E I G L W H N S K Y Y M D Y C K E K G V T V I T A R E V H	
UniRef90_UP100036720B7	P E R P L R P K N V E I G L W H N S K Y Y M D Y C K E K G V T V I T A R E V H	

	210	220	230	240
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UniRef90_Q164F5	H R S L T G L G G E I R R D G S K T P V Y I V S Y D I D S L D P A F A P G T			
UniRef90_UP10004777DFE	H Q G V V E V I D R V R Q R I G D R P L Y I S I D I D V L D P A H A P G T			
UniRef90_S6GDZ3	N K S L A P L M A E V R E T G K E M P V Y L T F D I D G L D P S V A P G T			
UniRef90_A1VTU0	E M G M R H T M E A A L A G I D D S T H L H V S F D I D F L D A S F A P G V			
UniRef90_Q13CK1	E F G V G V L I R R V I D R V R A A G G V L H L S F D I D F L D P A V A P G V			
UniRef90_E9C2L5	Y R S L A P L M A E V R A R V G D R P V Y V S V D V D V L D P A F A P G T			
UniRef90_E3J461	L E G V A A A V E R L R A R V G D R P V Y V S V D V D V L D P A F A P G T			
UniRef90_UP100035EAB4C	R L G M A R V M D E A I R I A G N G T D G V H V S F D I D C V D P L E A P G T			
UniRef90_A44MH0	R Y G D K V V R M A I D A V S P K G T E P V M V S Y D V D T I D P L Y V P A T			
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UniRef90_H0JH0	H R S L T S L M A E V R E R V W G G G P V Y L Y S Y D I D S I D P A W A P G T			
UniRef90_Q5V4R8	A R S A P A V V D E A L D I A T D G T D G I H V S L D L D D G I D P A Y A G G T			
UniRef90_UP10003483649	Y Q S L A P L M A R V R A A I G D A P C Y L L S F D I D G I D P A F A P G T			
UniRef90_D5BN64	H R S A A P L M A K K K A L G D D P V Y L L S F D I D A L D P A F A P G T			
UniRef90_W6U866	K L G I E S V M E I T L K I M R F C P N C Q I H L S F D I D C L D P K Y A P S T			
UniRef90_U2NC78	Y R S L A P L M A E V R E R V W G G G P V Y L Y S F D I D G L D P A F A P G T			
UniRef90_I2GYR4	R F G G I N K V I E M A L Q A I N P T G K S P L M C S F D I D P L Y V P A T			
UniRef90_H8L616	E H G I K R T V E A A L E G M G P D T H L H V S F D I D F L D P S I A P G V			
UniRef90_G0QWW2	Q F G I G E V M K Q A F K Y L K I D E D Q N L H L S F D I D A V D P S F A P G T			
UniRef90_S9X1G6	R Y G I N A V V E M A I K A V S P N G D E P I M V Y S F D I D S V D P A F A P G T			
UniRef90_K2M5A9	D R G I D D V M A E A R D I V G H D K T Y V S F D I D S V D P A F A P G T			
UniRef90_W9X7S2	R H G I G R V V E M A L A H G S D T P L H L S F D I D F L D P M W A P S T			
UniRef90_UP100029A7782	Q V G L D A V L K E I H C R V G N R A T Y V T L D I D A D P A F A P G T			
UniRef90_S7URP5	H L G L S R V M D E A I A R V A Q G T D A V Y V S F D A D V M D M H L A P G T			
UniRef90_UP10002FCF60D	K R G M D A V I K E A I D Y L R E R V N G V H L S F D I D G I D P L H T P G T			
UniRef90_B2GDX0	R S G V D A V V A A L R E R V G D R P L Y V S L S D I D V L D P A H A P G T			
UniRef90_F5SH81	P F E V L R P L K E E L P G L Q G R P V Y V T V D I D W L D P A Y A P G T			
UniRef90_L9WAP2	E R G M T A V I V E D A L D V A T D G T D G V H V S F D I D W L D P K A A P G V			
UniRef90_Q07N69	E F G V S V L M R D I I A R V R A C D G V L H V S F D I D F L D P D L A P G V			
UniRef90_W7YP19	R L G I E H V V N E A L R I I A G D G T D G I V H L S F D I D S V D P I E A P G T			
UniRef90_UP1000371BDD6	T T G L E G V L E Q I L S R L G E R P V Y V Y V S V D I D V L D P A F A P G T			
UniRef90_A8MXK3	E K G L E N V L E N V I E N N I K G S G V D G V H V I S Y D I D V F D K S I V P G T			
UniRef90_Q0W831	E I G M Y K V M K K A M K I A C N G T D A I H V S F D I D S I D P M E A P G V			
UniRef90_UP10003616D65	T R G V G E V V Q L L R Q R V G D R P L Y V S V D I D V L D P A H A P G T			
UniRef90_UP100037518B	H K S M T P L M E E I R G T I G P D C P V Y L S Y D I D S I D P A F A P G T			
UniRef90_UP1000366372E	E R G A K D V M A E A R R I A G N H P T Y V T F D I D S I D P S M A P G T			
UniRef90_Q0UYW2	R H G I G K I M D M A L A W I G M D T P I H L S F D I D A L D P M Y A P S T			
UniRef90_C1AEI9	E R G M R N V M D E A M Q V V T H G T G G V H V S S L D A D F I D V L D P R E A P G V			
UniRef90_L0IBC2	E R G I T A V V E D A L A A A T E G T D G L H V S S L D L D W L D P S A A P G V			
UniRef90_Q6WVP6	R M G I E A V I K E A L L A V N P R L E K A I H V S S F D I D A L D P L V A P S T			
UniRef90_Q1LGD2	E N G M R A T M E Q A L A G I D G D T H A I H V S F D I D F L D S Q I A P G V			
UniRef90_UP1000225FD02	R R G P G D V M A E V R D L M G D A P T Y V T F D I D S I D P S M A P G T			
UniRef90_K6XEV7	D M G A A G V A E R I R A R M G D R P I Y V S S I D I D V L D P A A A P G T			
UniRef90_M0CEW9	Q R G V S A V V E D A L A V A T D G T D G V H V S S L D L D W L D P K T A P G V			
UniRef90_UP10003629F18	E L G I S E V M K Q I H N Q V G N N P A F V S Y D I D F L D F L D P A Y A P G T			
UniRef90_S9QC72	H K S T A P L A A R I K D S M G E G P V Y V T Y D I D S L D P S I A P G T			
UniRef90_E4NLL6	E R G I T E V T Q D A L D V A T N G T D G V H V S L D L D W L D P R E A P G V			
UniRef90_Q164F4	R I G P E A T V A K I K A V L G D N P V Y V S T F D I D A L D P A F A P G T			
UniRef90_A1W2M6	E L G M R A V M Q A A L A D V D Q D T H L H V S F D I D M D C L D P S V A P G V			
UniRef90_C5FS58	R H G I G R V V E M A L A H I G N D T P I H L S F D I D V A L D P Q W A P S T			
UniRef90_UP1000369A705	E H G M A E T L R R A L A G L D E H T H L H V S S L D A D F L D P D I A P G V			
UniRef90_F1YGW5	T G G V A E V A S A I S R R L G D R P V Y V S V D I D V L D P A H A P G T			
UniRef90_I2DS95	N Q S L V P L M E E V R A R V G D T P V Y I V S F D I D G I D P A Y A P G T			
UniRef90_U2E6X7	E H G I E K V M E E S I S Y L K E R V D A L H V S F D I D S I D S S Y V P G T			
UniRef90_A0A021X7H5	E R G V V A V V M A E A R Q I V V G D A P T Y V T F D I D S I D P S M A P G T			
UniRef90_UP1000471B1B6	U M G L P A V I K K A R S V V G Q D P V Y V Y V S F D I D G L D P V Y A P G T			
UniRef90_G7LUS6	H R S L T P L M A E V R A R M G D G P V Y L Y S F D I D S L D P A W A P G T			
UniRef90_F7QQL9	E F G V G V L I R E F I A R V S A R N G V L H V S S L D V D F L D P V S A P G V			
UniRef90_UP1000382104A	H Q S L K P L A A E I R E Q I G D A P V Y V I V S F D I D S L D P A F A P G T			
UniRef90_C1B4Y9	V M G I E A A V D V V R R R V G D V P V Y V S I D I D V F D I D P A F A P G T			
UniRef90_R7PJ94	E M G L K T L V K T I L E R V G D K P C F L T F D I D F V D P A Y A P G T			
UniRef90_W8IH65	H R S L V P L M A E V R Q Q M G E G P V Y V S Y D I D S L D P G I A P G T			
UniRef90_UP100039D2342	E N G I A R L L E P F L E R C A R A H G F L H V S S L D V D F I D P D I A P A V			
UniRef90_UP1000375BE4F	R E G V V A K T I L E A V R A R V G E K P V Y V Y V S F D I D V L D P A F A P G T			
UniRef90_A1SLP1	R R G L E E C L D E A F E I A L D E C D A P F L V S V D I D V C D P G H A P G T			
UniRef90_F5Y5Z9	E H G M R N T M T E A L H D I G D N T H L H V S S F D I D C L D P M D A P G V			
UniRef90_N4VBA6	E V G T A G V V V R T I M E T L G T E D P V Y L S I D I D V L D P A F A P G T			
UniRef90_UP1000422B207	D L S V E Q I V S Q V K A I V G D K P V Y V T F D I D C L D P D I A P A V			
UniRef90_P14012	U R G V V P L E A F L D R V S K V S G R L H V S S L D V D F L D P A I A P A V			
UniRef90_UP100047A9471	E R G L R A V M N D A V R I A T T G T G G V H L S S L D V D F L D P Q E A P G V			
UniRef90_A9WLU5	R Q G G V D E V V H K L R D R I G N R P L Y V S S I D I D V L D P A H A P G T			
UniRef90_B2JW15	V L G P A A V A A E A R R I V G D A P V Y L L S S L D V D G L D P V F A P G T			
UniRef90_R7TUF1	N K S L L P L M K D I R E K M G D T P V Y L S F D I D G L D P S V A P G T			
UniRef90_B7GCN5	E Y G I E K I A E M A L E R A W D G C D A V Y M S Y D I D S I E A A F V P G T			
UniRef90_UP1000408BBFC	M S K Y E V V A A P L K E I P T L K G R P V Y V T I D I D V L D P A F A P G T			
UniRef90_R5U643	L D G L A E V I E K L Q G K P V Y I T L D D I D V L D P S V F P G T			
UniRef90_UP10003769E95	R I G L E E T L K R I H E R V G Q R A C F I F S L D I D C L D P A Y A P G T			
UniRef90_UP100029A745A	Q R G T Q A I I E A I R Q R V G D Q P V Y L T F D I D C L D P A F A P G T			
UniRef90_U7PHR7	D M G G A N A V L A A I G D N D D P V Y L S V D I D V L D P A F A P G T			
UniRef90_B7Q902	R I G I T E V I R L V L R Q N P G P T R S L H V S F D I D S I D K L I V P S T			
UniRef90_UP10002896EB5	E K G I N F I I N E I L S N L K D N I D N V H L S F D I D C L D S E F V P G T			
UniRef90_D5V529	D L G V D G L K E I H K I V G E T P T Y V T F D I D V L D P A F A V G T			
UniRef90_M7Y8T5	E F G V V A P L R R V L D R V L A A G A H L H V S S L D V D F L D P S I A P G V			
UniRef90_S3H8B4	E H G V A V L L R E F L E K V R A A D G L L H V S F D I D F L D P E I A P A V			
UniRef90_A0A024HN44	R Q G P E Q I V A E L I R A R V G D N P V Y L T F D I D C L D P A F A P G T			
UniRef90_B9R3R5	E L G V L A E T A A R A L E L A W K D A D A V Y I V S F D I D S V D C G F V P G T			
UniRef90_V6M624	K A G V E R M L E I I H E R V G N G P V F L V S S F D I D F L D P V Y A P G T			
UniRef90_A0A017SDG1	R H G I G R V V E M A L A H I G N D T P I H L S F D I D V L D P Q W A P S T			
UniRef90_UP100036F49C9	G T A S K L G D V I K M R V A A R V G T G G P V F V T F D I D C L D P A F A P G T			
UniRef90_I4YT69	E N G V V L S V I L D G F L K R V A A A D G F L V H V S S L D V D F L D P V I A P G V			
UniRef90_UP100036720B7	K E G I E N V V S R A L D I A S N N T K A I F L S F D I D G L D F A A A P G T			

	250	260	270	280
UniRef90_Q5HZU7	G T P E I A G L T T S Q A L E I I R G C R G L N V V G C D L V E V A P V Y D Q			
UniRef90_Q164F5	G T P E I G G L T T P Q A M E L I I R A L K G L N I V G A D L V E E V S P P Y D A			
UniRef90_UP10004777DFE	G T P E A G G M T S R E L L E I I L R G L D G L N I I G A D L V E E V S P P Y D H			
UniRef90_S6GDZ3	G T P E P A G L T A A Q G L E I I R G C W G T N L V G A D L V E E V S P P Y D T			
UniRef90_A1VTU0	G T A V K G G P T Y R E A Q L I C M E M I A D T G R M A S L D V M E L N P A L D V			
UniRef90_Q13CK1	G T T V P P G G A T Y R E A H L I M E L L H D S G L V R S L D D V V E E L N P F L D E			
UniRef90_E9C2L5	G T P E A G G L T A H Q G L E I I A R G V R G L N I V G C D L V E E V A P Q Y D T			
UniRef90_E3J461	G T P E A G G L T T R E L L V M L R A F A D L N L V S A D V V E E V A P A Y D H			
UniRef90_UP100035EAB4C	G T P V R G G L S L R E G L F L C E R I A E C G R L V A L D V V E E C N P L L A A			
UniRef90_A44MH0	G T P V R G G L S L R E G L F L C E R I A E C G R L V A L D V V E E C N P L L A A			
UniRef90_D5V999	G T T V M G G P T Y R E A S L C M E M I A D T G L M A S L D I M E L N P T L D E			
UniRef90_H0JHV0	G T P E I G G L T T I Q A L E I I R G C R G L E I V G C D L V E E V S P P Y D T			
UniRef90_Q5V4R8	G T P V R G G G V S Y R E A H I A M E Y V A E H D Q L I R S M E L V E E V N P I L D E			
UniRef90_UP10003483649	G T P E I G G L S V P Q A L E I I R G C R G L N L V G A D L V E E V A P P Y D P			
UniRef90_D5BN64	G T Q E I G G L S T T I Q A L E I I R G C R G L N I V G C D L V E E V S P P Y D P			
UniRef90_W6U866	G T P V P G G L S L E E G K Y I C R T L G Q T G R L K S M V I A E V N T S L G S			
UniRef90_U2NC78	G T P E I G G L S V W Q G L E I V R G C Q G L D L V G A D L V E E V S P A Y D S			
UniRef90_I2GYR4	G T P V R G G L T L R E G L F L T E R L A E T G N L V A L D V V E E C N P D L A Q			
UniRef90_H8L616	G T R V R G G P T Y R E A Q L C M E L I A D A G K M A S L D I V E L N P A L D K			
UniRef90_G0QWV2	G T K S K G G L T Y R E A H Y I C R S A A E S G K L V S M E L V E E V N P N L D D			
UniRef90_S9X1G6	G T P V R G G G L S F R E G L F L T E R I A E T G R L V A L D V V E E C N P H L A T			
UniRef90_K2M5A9	G T P E I G G F T S R E A Q K M I R L L A G L N L V G A D L V E E V S P P F D P			
UniRef90_W9X7S2	G T P V R G G G L T L R E G D Y I A E C V H E T G Q L V A M D L V E E V N P P S L D V			
UniRef90_UP100029A7782	G T P E V G G G F T S Y S E M L R I R G L H G L N L K G F D L V E E V S P P F D S			
UniRef90_S7URP5	G I M T R G G L T Y R E A I T Y V C R T I G E R L P A G L D I I E V N P L L M D K			
UniRef90_UP10002FCF60D	G T P V D G G P S Y R E T F H A M S T L Y D S E I L T S V E V V E V N P L L D Q			
UniRef90_B2GDX0	G T P E A G G G I T S R E V L E I L R G L R G L D V V A C D V V V E E V S P A Y D H			
UniRef90_F5SH81	G T P E P G G I T S G E L L E A I H T I A R S G E V G A D L V E E V A P V Y D P			
UniRef90_L9WAP2	G T P V R G G G V T Y R E A H A A L E T V S E E G V L R S M D V V E E V N P I L D E			
UniRef90_Q07N69	G T M V P G G G A T Y R E A H L V M E M L H D A G L V V A A D V V E E L N P F L D E			
UniRef90_W7YP19	G T P V R G G G V S Y R E A H L A L E L M N E S G V I T S A D F V V E E V N P P S L D H			
UniRef90_UP1000371BDD6	G T P E P G G L T S R E L L F L L R G L A P L D V V G A D V V E E V A P A Y D H			
UniRef90_A8AMX3	G T P V A D G F T L L E E G K F T I E T L L K E K F V T S M D V F V E E L N P I L D D			
UniRef90_Q0W831	G T P V Q G G G I T Y R E A H L A M E M I S E C G K L K S L E V V E E L N P I L D S			
UniRef90_UP10003616D65	G T P E A G G G L T S R E I L L E I I R G L R G L N L V G A D V V E E V S P P Y D P			
UniRef90_UP100037518B	G T V E I G G L T T W Q A L E I I V R G C R G L N L V G G D L V V E E V A P P F D V			
UniRef90_UP1000366372E	G T P E V G G G F T T R E A Q K M I R L L A G V N L V G A D L V V E E V N P S L D E			
UniRef90_Q0UYW2	G T A V R G G G L T L R E G D F I C E C V A E T G S L I A L D L V E E V N P S L D E			
UniRef90_C1AEL9	G T P V R G G G V S L L R E A H L A M E I I N D S R V M L A M D L V E E V N P I L D R			
UniRef90_L0IBC2	G T P V R G G G V T Y R E A H S A L E V V A E H D S L R S M D V V E E V N P I L D E			
UniRef90_Q6WVP6	G T A V A P G G G L T L R E G L R I C E E V S A T G K L S V E L A E L N P L L G			
UniRef90_Q1LGD2	G T A V R G G G P T Y R E A H L A L E M I E D T G A L G S I D V V E E L N P A R D V			
UniRef90_UP1000225FD02	G T P E I G G L T T R E A Q A Q M V R G L A G L N I V G A D V V E E V S P P F D Q			
UniRef90_K6XEV7	G T P E A G G G L T S R E L L A I L R S L I Q G L N L V G A D V V E E V S P A Y D H			
UniRef90_M0CEW9	G T P V R G G G V T Y R E A H A A L E T L S R R D E L R S M D V V E E V N P I L D E			
UniRef90_UP10003629F18	G T P E A G G G P T S F E G L E Y V R G L H G L D I K G F D L V E E V L P A Y D			
UniRef90_S9QC72	G T P E I G G L T T P Q A L E I I R G L R G L P I V G C D L V E E V S P P Y D T			
UniRef90_E4NLL6	G T P V R G G G V T Y R E A H A A M E L V A E S G A M R S S L E V V E E V N P I L D E			
UniRef90_Q164F4	G T P V W G G G L T S A Q A A A I L R D L A G I N V V G G D I V E E V S P P F D T			
UniRef90_A1W2M6	G T G V R G G G P T Y R E T Q L C M E M I L A D C G A L L G S A D L V E E L N P A L D V			
UniRef90_C5FS58	G T P V R G G G L T L R E G D F I A E C I H A T G N L I A M D L V E E V N P S L			
UniRef90_UP1000369A705	G T A V P G G G P G Y R E A Q L C M E M V A D T G R L G S L D V V E E L N P A C D V			
UniRef90_F1YGW5	G T P E A G G G L T S R E I L L G T V R A L A G R R L L G A D V V E E V A P A Y D H			
UniRef90_I2DS95	G T P E I A G L T V P Q A L E I I I R G A K G L N I V G C D L V E E V A P P Y D P			
UniRef90_U2E6X7	G T P V R N G G L T I E E A K K V L I A L A S S G L M V S L D L V E E L N P E L D D			
UniRef90_A0A021X7H5	G T P E L L G G F S T R E A Q H V R L L E G V N I V G A D V V E E V A P P F D L			
UniRef90_UP1000471B1B6	G T P E T G G F S T R E A Q Q M L R G L S G L N I V G G D V V E E V A P S F D P			
UniRef90_G7LUS6	G T P E V G G G L T S M Q G L E I V R G C R G L N I V G C D L V E E V S P P Y D I			
UniRef90_F7QQL9	G T T V S G G A T Y R E A H V M E M L Q D S G L V R S L D L V E E L N P F L D N			
UniRef90_UP1000382104A	G T P E I A G L T T P Q A M E L I I R G L H G L T I V G C D L V E E V S P P Y D M			
UniRef90_C1B4Y9	G T P E A G G G L T S R E I L L R M L R Q L T G L N V V G A D V V E E V A P A Y D H			
UniRef90_R7PJ94	G T P E V G G G F T S L E A L E L V R N I K D N F V G F D L V E E V L P A Y D H			
UniRef90_W8IH65	G T P E I G G G L T T I Q A L E I I R G C Q G L N I V G A D L V E E V S P P Y D T			
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UniRef90_A1SLP1	G T P E P G G G L S S R Q L L D A V R R I C R E L P V A G I D V V E E V S P P Y D H			
UniRef90_F5Y5Z9	G T G V R G G G P T Y R E I Q L C M E M I A D T G R M G S L D V V E E I N P A L D V			
UniRef90_N4VBA6	G T P E P G G G W T T R E I L I R I L R G I L E G L N L V V G A D V V E E V S P A Y Q G			
UniRef90_UP1000422B207	G T P V C G G G S S D K A L K I R A L Q G I N L V V G M D L V V E E V S P A Y D Q			
UniRef90_P14012	G T T V P P G G A T F R E A H L I M E M L H D S G L V T S L D L A E L N P F L D E			
UniRef90_UP100047A9471	G T P V R G G G A T L R E A H L A M E I I H D T G A L L V A M D L V E E I N P I L D S			
UniRef90_A9WLU5	G T P E A G G G I T S R E I L L E I I L R G L R G M N L I G A D V V E E V A P A Y D H			
UniRef90_B2JW15	G T P E V G G G L T T R E T Q A L I L R G L D G L N W V G G D V V V E E V S P P Y D P			
UniRef90_R7TUF1	G T P E I G G G L T S M Q G L E I V R G C R G L N V V G G D V V V E E V S P P Y D Q			
UniRef90_B7GCN5	G W P E P G G G L L P R E A L K I V G L V A A E G L C G M E V V E E V S P P Y D H			
UniRef90_UP1000408BBFC	G T A E A G G G I T S K E I L L E A I V A L A E S D N V V V G C D L V V E E V S P P Y D P			
UniRef90_R5U643	G T P E A G G G V T F V E L L M N A V I Q T A Q G V N V V G C D V N E L S P V Y D P			
UniRef90_UP10003769E95	G T P E V E G G F T S R E I L V A V R G L K G L E F K G A D V V E E V L P T I D			
UniRef90_UP100029A745A	G T P V C G G G L T T V Q A L E I I L G G L R G I N L V V G M D L V V E E V A P A Y D H			
UniRef90_U7PHR7	G T P E P G G G W T T R E I L I R I L R G L E G L N I V V G A D L V V E E V A P A Y Q G			
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UniRef90_UP10002896EB5	G T P V P H G M S T D E A K S S L Q L F N S G K I K S M D F V E E L N T E L E D			
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L G F V G V P W D S G T T R P G P R H G P R Q L R D A S T M I R A E H G V
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 UniRef90UPI000372FF91
 UniRef90_I4BK12
 UniRef90_W7A3G5
 UniRef90_B1QWE4
 UniRef90_K0AWS3

50 60 70 80

This figure displays a sequence alignment of UniRef90 proteins across 80 positions. The alignment is color-coded to represent amino acid conservation and hydrophobicity. Key features include:

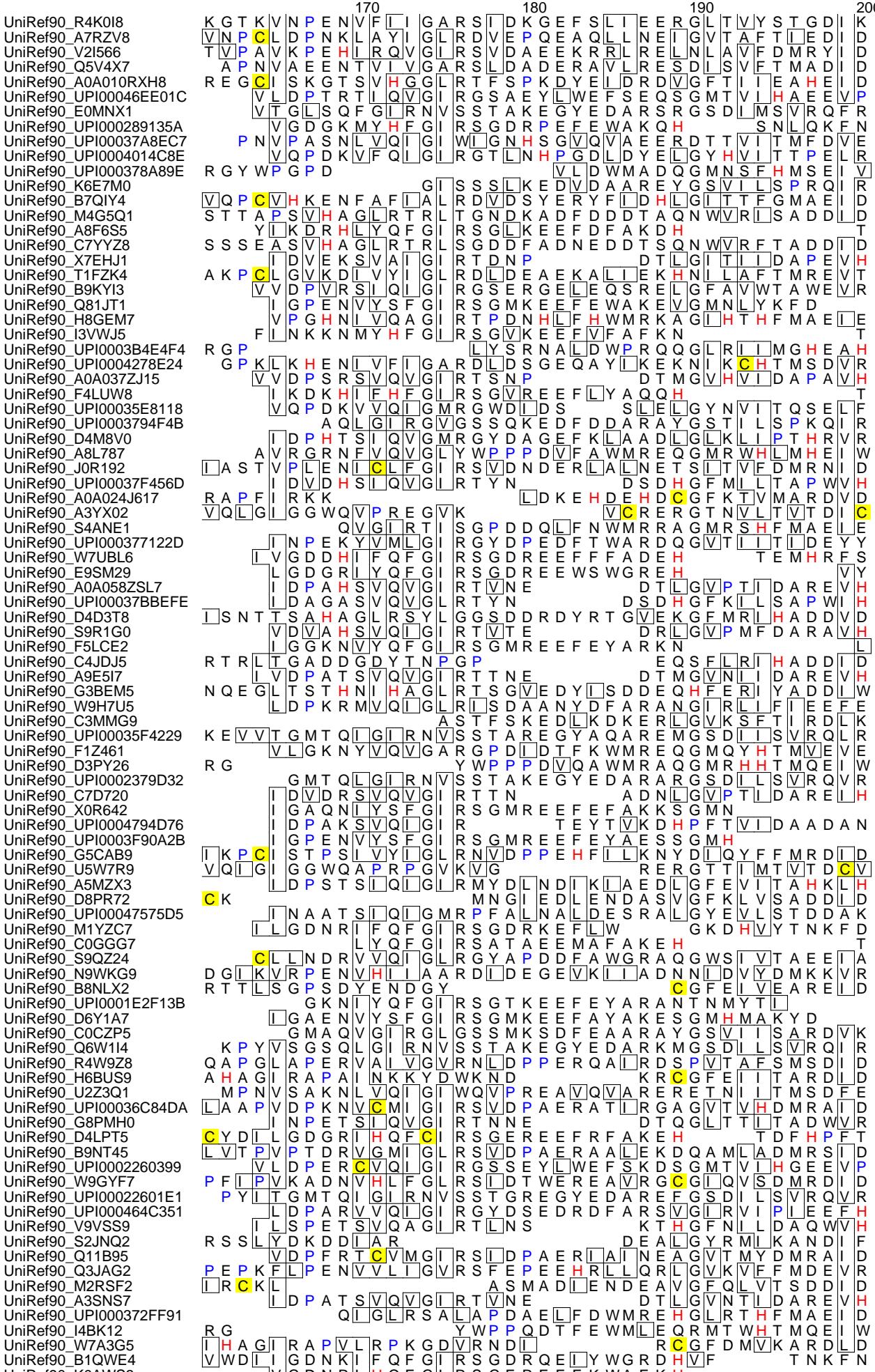
- Conservation:** Positions 50, 60, 70, and 80 are explicitly highlighted in yellow.
- Color Coding:** Amino acids are categorized by color: Red (Polar), Blue (Polar), Green (Polar), Yellow (Non-Polar), and Black (Hydrophobic).
- Sequence Length:** The alignment spans approximately 300-400 amino acids per protein.
- Conservation Pattern:** The alignment shows high conservation at positions 50, 60, 70, and 80, with many positions being yellow (Non-Polar) or black (Hydrophobic).

90 100 110 120

UniRef90_R4K018	Y S S F T A G S F P F V V G G D H S L G L G S I S G A S K Y Y K N L A V I W V D
UniRef90_A7RZV8	L N A L N N N R M A I T V G G D H S I A T G T V F G S W K F D N N T C V I W V D
UniRef90_V2I566	Y G C L Q D G R F P L L L G G D H C L A I G S I S A A R H C R D L L V L W L D
UniRef90_Q5V4X7	A T E I A D G S V P L V L G G D H S I A M G T M R G A Q A S E E L G V I W F D
UniRef90_A0A010RXH8	R Q I L W E H P R I I S L G G D H S I V L P I L R S L K T V Y G P I S V I H L D
UniRef90_UPI00046EE01C	R K V V S A G V I P L S V G G D H S I V T H P I L K A I G S E T P V G L I H I D
UniRef90_E0MNX1	R A V L A A G A I P V T L G G D H S I N I P A I A A F S E E E E P F H I V Q D
UniRef90_UPI000289135A	S E I L T D G K L P F M I G G E H L V T L G A V R A A F K Q Y P D L H V I H F D
UniRef90_UPI00037A8EC7	S H I L D A G A F P V I G G D H S I G Y P D A K A I A R H D G R L G I I H F D
UniRef90_UPI0004014C8E	L S L M Q K G I I P I G L G G D H S I S V T L A S L R A A A K V H G P V A L I H F D
UniRef90_UPI000378A89E	A F I A K N G A V P L I L G G D H S I V T W P D V T G V S R H H G R V S V I H F D
UniRef90_K6E7M0	R K I V S K G K A M P V V L G G D H S I T P V G K A L E E L G P F H V I Q I D
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UniRef90_M4G5Q1	R R R L Q Q K P K I I T L G G D H S V A L A T L R A L K E V H G P V R V L H F D
UniRef90_A8F6S5	N E I V Q D E K I P V F I G G E H L I T F P V R R M A L K Y P E L K I I H F D
UniRef90_C7YYZ8	V S S L A P K P K L M T L G G D H S I L A P A L R A L N H I Y G P I Q V L H F D
UniRef90_X7EHJ1	R R I L D A G A A A I T V G G D H S I T L P L L R A H A A K F G P V A L V Q F D
UniRef90_T1FZK4	E Q S I S Q N H F C V A L G G D H S I T A I G T I I G H A R A H P N L A V V W D
UniRef90_B9KY13	R T V V E E G G V I P V G I G G D H S I V T L P E L R A V A R R F G P L A L V H F D
UniRef90_Q81JT1	S K L L D A G K F P L G L G G E H L V S W P I F K A M A K K Y P D L A I I H M D
UniRef90_H8GEM7	S E V L D V G A V P I V M G G D H S I M V P N V R A L V E K Y G K L A I V H F D
UniRef90_I3VWJ5	K D I I D A G K K P I F L G G E H L I S A P I L E K V F N K Y G E L V V L H F D
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UniRef90_UPI0004278E24	D E S V S N K N Q F P L L I G G D H S I S L S G I S G I S H Y D N L G V I W D
UniRef90_A0A037ZJ15	A T I I L D A G T A C I A M G G D H Y V S F P I L Q A H A A K F G P L S I I Q F D
UniRef90_F4LUW8	E K I I L E D E K I P L Y L G G E H L I S Y P I I K K V T E K Y P D L V V L H F D
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UniRef90_UPI0003794F4B	R K I I I S K G A I P I V I G G D H S I V T N P V A F A L E E R K E K I N V V Q D
UniRef90_D4M8V0	S G I I L D A G A L P I A L G G D H S I T L A E L R A V A G A K H G P V S L I H F D
UniRef90_A8L787	G D V A R L G V I P V I G G D H S I T W P A A S G V A E G W G E V G L I H F D
UniRef90_J0R192	Y E L L K K Q G F P I F M G G D H A M S A G T V A G V K K Q G R P L F V L W D
UniRef90_UPI00037F456D	T A M L D K G K V H P V T L G G D H S I F V T Y P I L R A I A K K H G P V C L L H F D
UniRef90_A0A024J617	R Q V V H N H S P R I I T L G G D H S I T T F A A L R S V S E V H G P V S V I H F D
UniRef90_A3YX02	A H V V F A S G A F P I I T L G G D H S I G F P T V R G V C R H L G D K K V G I I H
UniRef90_S4ANE1	R E I I A E V G A R P V V L G G D H S I S L L W P S V G A L S E V H G R I I A V I H F D
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UniRef90_S9R1G0	A E I L M G Q G G A A V L T L G G D H S I T L P I L R A H A A V H G P L A V V V Q F D
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UniRef90_C4JDJ5	T P R N G K P K L I T L G G D H S I A L P A L R A L Y K I Y K P I T V V H F D
UniRef90_A9E5I7	K T I I L D A G A A S V V L G G D H S I Y S F P I L K A Y A E K Y G P I S L L Q F D
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UniRef90_F1Z461	A E I I A R A G A I P I V I G G D H S I E Y P D V A A M A D V Y G K G K V G V V H
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UniRef90_X0R642	U n i f e r 9 0 _ X 0 R 6 4 2
UniRef90_UPI0004794D76	U n i f e r 9 0 _ U P I 0 0 0 4 7 9 4 D 7 6
UniRef90_UPI0003F90A2B	U n i f e r 9 0 _ U P I 0 0 0 3 F 9 0 A 2 B
UniRef90_G5CAB9	U n i f e r 9 0 _ G 5 C A B 9
UniRef90_U5W7R9	U n i f e r 9 0 _ U 5 W 7 R 9
UniRef90_A5MXZ3	U n i f e r 9 0 _ A 5 M X Z 3
UniRef90_D8PR72	U n i f e r 9 0 _ D 8 P R 7 2
UniRef90_UPI00047575D5	U n i f e r 9 0 _ U P I 0 0 0 4 7 5 7 5 D 5
UniRef90_M1YZC7	U n i f e r 9 0 _ M 1 Y Z C 7
UniRef90_C0GGG7	U n i f e r 9 0 _ C 0 G G G 7
UniRef90_S9QZ24	U n i f e r 9 0 _ S 9 Q Z 2 4
UniRef90_N9WKG9	U n i f e r 9 0 _ N 9 W K G 9
UniRef90_B8NLX2	U n i f e r 9 0 _ B 8 N L X 2
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UniRef90_G8PMH0	U n i f e r 9 0 _ G 8 P M H 0
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UniRef90_A3SNS7	U n i f e r 9 0 _ A 3 S N S 7
UniRef90_UPI000372FF91	U n i f e r 9 0 _ U P I 0 0 0 3 7 2 F F 9 1
UniRef90_I4BK12	U n i f e r 9 0 _ I 4 B K 1 2
UniRef90_W7A3G5	U n i f e r 9 0 _ W 7 A 3 G 5
UniRef90_B1QWE4	U n i f e r 9 0 _ B 1 Q W E 4
UniRef90_K0AWS3	U n i f e r 9 0 _ K 0 A W S 3

130 140 150 160

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UniRef90_A7RZV8	A H A D L N S P L I T T T G N V H G M P I S W L L K G P E F P V V P G Y E W
UniRef90_V2I566	A H A D A N T G S T S P T G N I H G M P V A C L C G D G G P A P L I S L S G
UniRef90_Q5V4X7	A H G D Y N T P T T S P S G N V H G M P L A A A H G Y G D F A E M P W A T S
UniRef90_A0A010RXH8	S H L D T W D P Y E G Y T G V S N Q S A I T H G T F F W H A S
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UniRef90_UPI0004014C8E	S H T D T W D T Y Y D E K Y W H G S P F R A H E E G L
UniRef90_UPI000378A89E	A H A D T G D E F G S L Y G H G Q P M R R L I E S G A V R G D R F L Q L G L
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UniRef90_A8F6S5	A H A D L R D T L F G E K L S H G T V L R R V C E
UniRef90_C7YYZ8	A H L D T W N P A A Y P S W W G A S Q F T H G S M F W M A N Q E G L L S N
UniRef90_X7EHJ1	A H S D S W V D D D P E R D H G T F V Y K A V K E G L
UniRef90_T1FZK4	A H A D L N P P L A S P S G N S H G M P V S F L L R E L V E Y P D P G F E W
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UniRef90_F4LUW8	A H A D L R D T Y F G E K L S H A T V L R R I S E H
UniRef90_UPI00035E8118	S H T D T W D T Y M D E K Y W H G S P F I R A Y E E G L
UniRef90_UPI0003794F4B	A H L D W L K D A S G Q R F T L S N P M R R M S M E H I N K M
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UniRef90_A8L787	A H A D T A D I D G N L A S H G T P M R R L I E S G
UniRef90_J0R192	A H T D F H T L N S T K S G N L H G T P V A Y F S G M P G F D H Y F P P
UniRef90_UPI00037F456D	A H C D T W E D D G N G L N H G T M F L R A K R E G L
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UniRef90_A3YX02	F D R H V D T Q E I D L D E R M H T C P W F H A T N M A N A P A Q N L
UniRef90_S4ANE1	A H P D C H E E L F G H R A T H T T P I R R L I D E E M V P G P N I
UniRef90_UPI000377122D	S H S D T W D S Y F G G Y K Y T H G T P F R R A I E E N L
UniRef90_W7UBL6	A H A D L R D D Y L G Q K M S H A C V L R R C H E L
UniRef90_E9SM29	A H A D L R D D Y L G A K L S H A C V I R R C H E L
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UniRef90_UPI00037BBFE	A H C D T W D D G S E T S L N H G T M F L R A K Q Q G L
UniRef90_D4D3T8	A H Q D T W E S S R Y D G Y W N H G T W F H A G Q E G L
UniRef90_S9R1G0	A H S D L W P D D D P E R I D H G T F L Y K A V K E G L
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UniRef90_A9E5I7	A H T D T W A D D D M D R D H G T M F Y K A V K S G
UniRef90_G3BEM5	A H L D T W T P E G Y P S Y W H S D Q S E L N H G S M L W K A
UniRef90_W9H7U5	A H S D T Y D S F F G N R Y N H G T P F R R A V E E G L
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UniRef90_UPI0002379D32	A H L D F V D E R H G V T A G H G N P M R R A I E K D Y V S
UniRef90_C7D720	A H S D T W P D D D M D R D H G T M F Y K A V K E G L
UniRef90_XOR642	A H A D L R E E Y E G E V L S H S T P I R K A C S L
UniRef90_UPI0004794D76	A H T D T Y S E P G S E F N H G S M F H F A P L E G L
UniRef90_UPI0003F90A2B	A H A D L R E E Y E G E A L S H S T P I R K T C E L
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UniRef90_A5MZX3	S H L D L G K S V F G K Y Y T H G T P F R R A L E E G L
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UniRef90_C0GGG7	A H A D L R T D Y L G E A H S H A S V M Y H A C R D L K V D
UniRef90_S9QZ24	A H A D I N D T M F G E K V A H G T P F R R A W E D G
UniRef90_N9WKG9	A H A D I N T Q T S P S G N V H G M P I A G G G I D D K L S H V Y F
UniRef90_B8NLX2	S H L D S W K P K V F G G S P N H G T Y F Y H A A M E G L L K N D T N I H A G I
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UniRef90_C0CZP5	A H L D W C D E R A G Q K L G Q G S P M R R L S E M K H V D
UniRef90_Q6W114	A H L D F V D E R H G V R Y G H G N P M R R A A E E G L
UniRef90_R4W9Z8	A H G D F N T P S T T P S G N V H G M P L A A A L G R D E F A E M E W A
UniRef90_H6BUS9	S H L D T W D P K V L G G G L S H Y A G V N H G T F L H I A H E E G L I L N S S
UniRef90_U2Z3Q1	R H A D I Q E K L D L D E R M H T T P W F H A T N D P N V P P K N L
UniRef90_UPI00036C84DA	A H T D F H T L E T T D S G N L H G T P A Y F T G Q S G F D A G V F P P
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UniRef90_D4LPT5	A H A D L R D D Y L G A H L S H A C V I R R
UniRef90_B9NT45	A H S D F H T P S S S G S G N L H G T P V A Y F T G Q S G F D A F P P
UniRef90_UPI0002260399	A H C D T S G E Y E G A K F H H G G P F R L A V L D G
UniRef90_W9GYF7	A H A D F N T P A T T P S G N M H G M S V A F C G D P S L R P L L G D R
UniRef90_UPI00022601E1	A H L D F V D E R Q G V R H G H G N P M R R A A E Q
UniRef90_UPI000464C351	S H T D L F H T S Y F G G T M Y T H G T P F R R A V E E G L
UniRef90_V9VSS9	A H S D T W A P E I Y G S K Y N H G P L Y H A S K E G L T T N G T S L H V G I
UniRef90_S2JNQ9	S H L D T W A P E I Y G S K Y N H G P L Y H A S K E G L T T N G T S L H V G I
UniRef90_Q11B95	A H T D F H T L D S T V S G N L H G V P L A Y A T G Q P G F D G Y F P P L M A A
UniRef90_Q3JAG2	A H H M D A H L P E T S P S G A L C L L G W G D P R L T A I G S
UniRef90_M2RSF2	A H L D T W G S Y P G T E Q S R V T H G T F F Y L A Q E E G L M T N T S I H A G
UniRef90_A3SNS7	A H S D T W P D D D M D R V D H G T M F Y K A V K S G L
UniRef90_UPI000372FF91	A H P D C S Y D L V G H L T S H G T P V R R L I E D E H V P G R N F V
UniRef90_14BK12	A H A D T A D E L E G N L A S H G T P M R R L I E S G A V P G S H F V Q V G L
UniRef90_W7A3G5	S H I D T W D P K V L G G G I S H Y A G V N H G T F L H I A H E E G L I R N T S
UniRef90_B1QWE4	A H A D L R D E L E Y L G Q Q L S H A T V M H R
UniRef90_K0AWS3	A H T D L R D E L F G E K L S H A T V I R R A W D L



	210	220	230	240
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UniRef90_V2I566	E N G M R H T M Q N A L A G I D D N T H V H V S F D I	D F L D C S I A P G V		
UniRef90_Q5V4X7	K Q G I G S V T D E A L D A T D G V D D I H V S F D I	D W L D P D A P G V		
UniRef90_A0A010RXH8	D I G M S G I V K K V R D A V G N T P V Y L S I D I	D V L D P S I A P A T		
UniRef90UPI00046EE01C	K M G I E A V V I A K A R E V V G D G P V Y V S F D I	D G L D P S F A P G T		
UniRef90_E0MNX1	K L G P Q A M A E R V P A G E R I Y I T I D I	D G F D P S I A P G T		
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UniRef90_M4G5Q1	D M G A S G V A R E I M R Q L G T E D P V Y Y L S V D I	D V L D P A F A P G T		
UniRef90_A8F6S5	R T F L Y D V K E P F M K V F D E L K G F P I Y I T L D I	D V F D P A F A P G T		
UniRef90_C7YYZ8	E I G T K G I D G I L K V L G T E N P V Y Y L S V D I	D V L D P A F A P G T		
UniRef90_X7EHJ1	R A G P D G I A R R V R D I V G E V P A Y L T F D I	D A L D P A F A P G T		
UniRef90_T1FZK4	E L G V D A V V R A A I K Y S P S G T R P I H L S F D I	D G L D P T D A A S T		
UniRef90_B9KY13	R A G I E R V L E A V R Q R V G Q H P V F V S F D I	D F L D P A F A P G T		
UniRef90_Q8J1T1	V L E E P L K E V L P K L E G R P V Y Y T I D I	D V L D P A H A P G T		
UniRef90_H8GEM7	R L G L P A V V V D K V I A E A S D G A E V V Y Y V S L D I	D V V D P A Y A P G T		
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UniRef90_A0A037ZJ15	A S T P A E I A K Q I R D I V G D T P A Y V T F D I	D A L D P A F A P G T		
UniRef90_F4LUW8	H M H P I E V K T P F L N V L Q D L K N R P I Y I T L D I	D V V D P A F A P G T		
UniRef90UPI00035E8118	N R G I D D V V Q Q V K Q I I G D T P C F L T F D I	D F V D P A Y A P G T		
UniRef90UPI0003794F4B	K I G I E E A L K D M P E G E K Y Y V T I D I	D G L D A S I A P G A		
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UniRef90_A3YX02	D M G L E A A A Q F A I E R A T D G T D C V Y I S F D I	D C L D A G F V P G T		
UniRef90_S4ANE1	R V G F A A V I D K V I I E A K A V A D H V Y L S L D I	D V L D P A F A P G T		
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UniRef90_E9SM29	T H R F N L A Q E S L M E S L R A L Q G K P V Y L T V D I	D V L D T S V F P G T		
UniRef90_A0A058ZSL7	E K G P Q A A V A K I K Q V L G D R P V Y V T F D I	D A L D P A F A P G T		
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UniRef90_S9R1G0	E E G P D A I A R K V R S I V G Q A P C Y L T F D I	D A L D P A F A P G T		
UniRef90_F5LCE2	N L Y P F E V L E P L K K V L P E L A G R P V Y Y L T I D I	D V L D P S A A P G T		
UniRef90_C4JDJ5	E I G V K G V I D T I I S R V G L S P N D P V Y Y L S L D I	D V L D P S I A P G T		
UniRef90_A9E5I7	E K G P Q A T V A K I K E I L G D R P C Y L T F D I	D A L D P A F A P G T		
UniRef90_G3BEM5	V E G V K Y V I D K I L D T V P K D T P T Y L S V D I	D V L D P G F G S G T		
UniRef90_W9H7U5	E R G P R E V M A E A R A I A G D L P T Y V S F D I	D I L D P S I A P P G T		
UniRef90_C3MMG9	Y N L I D S V I R E I N S L S G S P T H V S I D I	D V V D P A F A P G T		
UniRef90UPI00035F4229	K L G I E G V L S R I P K N V R Y Y L T I D I	D G F D P S I A P G T		
UniRef90_F1Z461	K S G W D K V M E E A V S E A R R N T D K L W I S F D I	D V L D P A F M V G T		
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UniRef90_C7D720	E Y G T T A V A K A I R Y I I G D Y P T Y L T F D I	D C L D P A Y A P G T		
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UniRef90UPI0004794D76	D R S A A S I V E Q I K S I V G D T P T Y L T F D I	D C L D P A Y A P G T		
UniRef90UPI0003F90A2B	M A K F S V A E P L K Q I L P E L A G R K V Y V T I D I	D V L D P A Y A P G T		
UniRef90_G5CAB9	Q L S I K K V M E Q T F D L I L G K R Q R P I H S F D I	D A F D S T I A P V T		
UniRef90_U5W7R9	E M G I E Q A A E R A L E V A W D G A E A V W L S F D I	D C L D A A F V P G T		
UniRef90_A5MXZ3	K M T E E L G E K I K G R V G Q G K A F L T F D I	D F V D P A Y A P G T		
UniRef90_D8PR72	D L G I P E V I K R I R E R V G D S P V Y Y L S F D I	D V I D P G L A P A T		
UniRef90UPI00047575D5	K L S I P E L C E R I K Q R V G D N P V F L T F D I	D F L D P V F A P G T		
UniRef90_M1YZC7	F K G L E F L L E E K L K D V P V Y Y L T I D I	D V L D P S E F P A T		
UniRef90_C0GGG7	H F Y P F H V S Q P L A K V V Q T L K G K P V Y L S L D I	D V V D P A F A P G T		
UniRef90_S9QZ24	G R D L R R L M E Q V R A L I G D A P C Y L S F D I	D S L D P G L A N G T		
UniRef90_N9WKG9	E I G V Q K T V K E V L E K I K A K G I K N I H S Y D I	D G I D P E F I E G T		
UniRef90_B8NLX2	T I G T D G I I K R I R D R V G T E N P V Y Y L S I D I	D T L D P A Y A P A T		
UniRef90UPI0001E2F13B	E V L E E P L K K L V D K F K G K P V Y F T L D I	D V V D P A Y A N G T		
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UniRef90_C0CZP5	K K G I D Y A L S Q I P P A E R Y Y I T Y D I	D G T D P A L V T G T		
UniRef90_Q6W114	V L G T D A V V E R V P A G A R Y Y V T I D I	D G F D P S I A P G T		
UniRef90_R4W9Z8	E H G I V D V V E A A I A A A S D G A D G L H V S L D I	D W L D P K E A P G V		
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UniRef90_U2Z3Q1	R M G V D K T V E M A L E L A W D G V D M V Y S F D I	D S I D C G F V P G T		
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UniRef90_G8PMH0	N N G A Q A T I D R I L T V I G Q S A C Y I S F D I	D C L D P A F A P G T		
UniRef90_D4LPT5	F E G L E E T V Q E L A R K Q V P V Y F T I D I	D C L D P S V F P G T		
UniRef90_B9NT45	E H G I K T P L L A F L D K V R A A N G I L H V S L D I	D F L D P S I A P A V		
UniRef90UPI0002260399	K L G T D A I L E T V R K V V G T P V Y Y V S F D I	D F L D P S I A P G T		
UniRef90_W9GYF7	D H G V S T L L Q R F I D Q V A A A G A H L H V S L D I	D F L D P S I A P G V		
UniRef90UPI00022601E1	K L G L E A L L E R I P A G V N Y Y L S I D I	D A F D P S I A P G T		
UniRef90UPI000464C351	A R G V A D V M A E A R G I V G D A P T Y V S Y D I	D F V D P A F A P G T		
UniRef90_V9VSS9	E N G I D A T V S R I K D L V G D R P A Y L T F D I	D A L D P A Y A P G T		
UniRef90_S2JNQ2	T L G V E G I S Q R K I K E I L G S P E D A L V Y L S I D I	D V L D P S M A P A T		
UniRef90_Q11B95	E H G V A P L L R A F L E R V A S Q D G L L H V S L D I	D F L D P S I A P A V		
UniRef90_Q3JAG2	R R G L S E V F Y E A L G R I R D R T T G F G I S S L D I	D A I D P K E A P A V		
UniRef90_M2RSF2	D L G V E A E I I R R I R A R V G D S P V Y Y L S I D I	D V I D P G L A P A T		
UniRef90_A3SNS7	E S G P A A V V A Q K I K K I L G D R P T Y V T F D I	D A L D P A Y A P G T		
UniRef90UPI000372FF91	R R G F D A V L D D A I E E A L D G P E Y L F L S L D I	D V L D P A F A P G T		
UniRef90_I4BK12	E R G F K A V M A D A V G E A L A K A D K L Y V S S V D I	D V L D P A H A P G T		
UniRef90_W7A3G5	R I G V S G I I E T L K A R V G D S V Y Y L S V D I	D V L D P A F A P A T		
UniRef90_B1QWE4	F N G L E E V V E K L L K G K P I Y F T L D I	D V L D P S V F P G T		
UniRef90_K0AWS3	T N L T K F T Y E G L D E T V T S I G D S P V Y Y V T I D I	D V L D P S V M S G T		

250 260 270 280

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UniRef90_A7RZV8	G T K V R G G L S N S E G H Y I C Q L L S Q T G L L Q A I D L V E V N P T L G
UniRef90_V2I566	G T T V M G G P T Y R E T Q L C M E M I A D T G R L G S S L D V L E L N P A C D V
UniRef90_Q5V4X7	G T P E P G G V T Y R E A H T A M E R V A D R D A L R S L D V L E V N P I L D Q
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UniRef90UPI000289135A	G T P E A G G V S Y L Q L L E A L T E V S Q K A N I V A C D V N E L S P I Y D P
UniRef90UPI00037A8EC7	G T P E P G G M S P R E A L K A V R T V A Q E G I G M D L V E I A P P Y D V
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UniRef90_C7YYZ8	G T P E P G G W S T R E F I R I L R G L E G L N L V G A D V V E V S P A Y Q N
UniRef90_X7EHJ1	G T P V W G G L S T Q G A A L I R G L L A G D I V G G D V V E V S P Q Y D T
UniRef90_T1FZK4	G T P V P G G L L L R E G V Y I T E S L A A T G H I Q M D M V E V N P T L G S
UniRef90_B9KY13	G T P E V V G G F A M W E A Q E L V W G L V G L N I V A A D V V E V L P D R D P
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UniRef90_A8L787	G T T V P P G G A T F R E A H L I M E M I F D S G L A T S L D L A E L N P F L D E
UniRef90_J0R192	G T P V W V G G L S S A Q A L E L M R G L G P L N S V V G M D L V E V A Q V Y D V
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UniRef90_A0A024J617	G W P E P G G L L P R E A L K L L E L I V R N V P V C G L E V V E V S P P Y D I
UniRef90_A3YX02	G T P E P A G L N T R E E L F T A L R R I A H E T D L I G M D V V E V A P H L D
UniRef90_S4ANE1	G T P E V V G G F N V R E A Q L I I R S L N E I N F I G A D V V E V S P P F D L
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290 300 310

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 D I A F L G A P F D T G T Y R P G A R F G P S G I R Q G S R R L N L Y N T L
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 Y D V A I V G A P F D T A S Y R P G A R F G P R S I R A A S A R Q M A Y N T R
 A D V I I T G V P F D A T T G R S G S R M G P G A I R Q I S T N L A W
 A D V I I L G M P Y D A T T G R S G S R M G P D A V R R A S S V N L A W
 A R L V L A G L P E L T S F R P G T R E G P Q A I R A A S S Q G L E E Y S P Y
 A D V A V L G V P N D M G Q W R S G A R F G P R G I R E A S T L F S F G H A G
 T F D I G I I G V P F D S A T Y R P G A R F G P Q A I R A A S S Q R Q R S F N F R
 T R T I L L V G A P V D S A T Y R P G A R F G P R A I R A G S A R F R G F N P R
 S Q T V L L I G A P V D C G K A R N G C L M G P D A Y R T A R L G G A L T D L G
 V L F G V P F D G T T S R P G T R F A M Q A I R N D S F G L E S Y S
 A F D I A F L G A P F D T T S Y R P G A R F G P S G I R A G S S R R L N L Y N V P
 A V T G V P F D Q A T N R S G T R L G P R A I R E A S S L L Q P C D A P Y
 Y D I A F I G A P F D T G T Y R P G A R F G P S G I R Q G S R R L N L Y N V P
 Y D I A F L G A P F D T G T Y R P G A R F G P S G I R Q G S R R L N L Y N V P
 A D M A V L G V P Y D L G V G L S G T R L G P R R I R E A S T Q Y A R G S R G

I D L I G A A I I G C G A Q D D G C R D G P R A L L Q A G A L Q R I R T P D
 V A M I G M P I D L G S N R P G S R F G P R A L R S I E R I G P Y N H V
 D I G I V G V P F D F P T N R G G T R H P G S Q V R E M S R L I R R F P A G
 A K I V F F G A P Y D T G T S S R P G S R F A A S R I R I D S Y G L E T Y S
 S R H C I L V G A P V D S G K R R T G C L M G P D A Y R T A G L A Q A I L E S L G
 F M G I P F D A T T Y R P G A R F G P M G V R D G S R L L R P Y N P F
 D I A V L G M P F D S A S Y R P G A R F G P H G I R S G S R R I S P T R G Y Y
 A D L V L F G A P F D T T S F R P G T R F A S K T M R G D S F G L E T Y S P Y
 D F A V L G V P L D I A T S R P G A R L G P D A V R C A S A Q L A E
 A F D I A F L G A P F D T G T Y R P G A R F G P A G I R A G S R R L T L Y G
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 D I G I L G V P F D T A S Y R P G A R F G P K A I R A A S A R F R G F N T R

D I A I V G A P Y D T S T S R P G A R F G P N G I R Q G S R R L G S G V S P
 D V A V I G V P T D S A S Y R S G A R F G P E A I R S A S I L L R D H N P A
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 Y D V A F V G V P F D V G T F R T G T R F G P Q G M R R I S A L Y Q K Y S F E
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A S C V I F G A P M D T T S Y R P G T R F A S S A I R K E S F G I E T Y S
 K T L A M I G A P I S D G Q D Y D S T R L P Q A I R D G G L E A V T K E V G
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 A K W V M V G I P Y D G T S Y R P G T R F G P E M I R T A A W G L E
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 A D A A V L G V P Y D G A S N R P G A R F G P R A V R R A S G W L A Y L S G Y
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 S L V I F G A P F D T T S F R P G T R F A S K V M R S E S F G L E T Y S
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 Y D I A V L G A P F D T T G R P G A R F G P G A I R R S G S S R I A A W S L Y
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50 60 70 80

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UniRef90_U2EB52	P Y Q D R D L E D S K V F D A G D L E L T F G N P K R V L D T I E A F T
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UniRef90_X7EDX7	H E V I D L G N V T P A A T E A E P D A H L H A L P E T I G W T R A L S G A A P
UniRef90_B2VU20	A N L N P Y T S W A K I I D C G D I P F D N V L A L K Q M S E A F M E L G K R P
UniRef90_W4HMD0	H T V R D L G N V W P D T T D V A E D A H L V A L P E T V G W T R A L S R A A
UniRef90_W4F260	P Y L D K N L E E A A I F D G G D L D L P F G N T S K V L D Q I F D Y C
UniRef90_UPI000455DBD1	L E V N P F M S G L D C G D I P V T P Y D N K F A I K Q I E N G H K Q L L Q R V
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UniRef90_W9C9W2	A G I N P Y T S F A R I L D C G D I P V T P L N N A V A L E Q M T A A Y T E L L
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UniRef90_S6F0J6	P Y H S G Y K L V D C G D V P M T P F D N R I A L N Q L Y R G H R R I H N T T
UniRef90_L0DIQ7	H G I D L G E T L A M C D V G D I F C P A N I T K S H D Q I T K G I
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UniRef90_B1C5F3	P Y Q D K D L E D I S V F D G G D L E L P F G N P R K A L D M K E T T
UniRef90_C5L176	W A F E D R G D L D F R A A I P Y Y D N A K I K N C E K I G R A C G H I F D A V
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UniRef90_V2WB99	S T I L L R R H P R I V T L G G D H T I V L P I L R S L Y K I O Y G P V V S V I H F D			
UniRef90_A9E9E6	A N A A M D D G L P I F M G G D H A T V L G A M R H A E K A G R P L F V L W L D			
UniRef90_Q493F1	E N L L M S G K K M L S F G G D H Y T T L P I L R A Y A K F F G K L A I I H F D			
UniRef90_E9ESD8	G P A I K G R T L P I T L G G D H T I T L P I L R S I N R A Y G P V S V I H F D			
UniRef90_UPI0004633F40	A G I L L D A G A A A I T L G G D H S I T L A I L K A Y A E K F G P L S V I Q F D			
UniRef90_F6B315	S H V F A S G A M P V M M G G D H S I G Y P C V R G V A P H D G N I G I I H L D			
UniRef90_D5GMK5	P A Y E A D E P R I I T L G G D H T I V L P I L R S V K R A Y G P V S V I H F D			
UniRef90_G8AZ14	N R V M D M A G V V P L S V G G D H S I T Y S I L K A L G R E R P P V G M I H F D			
UniRef90_F9X1P5	N S P V R H F P K L I T L G G D H S I A L P T L R A L Q A V H G P I A V V H F D			
UniRef90_UPI00035D73A3	A R V H S A G A R P L M V G G D H S I T L P I L R A L G R D R P P L G L V H I D			
UniRef90_Q1YIK6	A T I A G A G V V P L F V G G D H S I T L P I L R A L G A D R P P V G M I H I D			
UniRef90_T0CMY3	N C S L K T S G C F P F I V G G D H S I A L P G S I S G V K Y F N K N L A I V W F D			
UniRef90_N1Q0H4	K S P L K Y R N I P L T L G G D H S I A L P T L R A L N K I I Y G A V A V V H F D			
UniRef90_G7XYB3	A L T T A S S K Y L V T L G G D H S V A L P A L R A L Y Q I Y K P I T V L H F D			
UniRef90_W9A2P8	T G L L E E Q G K T L L T F G G D H F V T L P I L R A H A K Q F G K M A L I H F D			
UniRef90_UPI0003105392	S Q I L L A S D K A L L T L G G D H S I T L P I L R A H Y A K Y G Q M A L I H F D			
UniRef90_K4LDU9	R V L L A D A K I P V F L G G E H L I T F P V V K T L A E A Y S G L K V I H F D			
UniRef90_K9NHJ4	R K I L L D A G V V M P V V L G G D H S V H A P V I K A F E G R G P I H I I H F D			
UniRef90_G8ZPA6	D R D S E Y S K S S M S L G G D H S I I L P V I R N L Y K L Y Y G P I T V L H F D			
UniRef90_X7EDX7	E A A L L A R G T A I F L G G D H H A L S L G T V H G A A A H A K P L F V L W L D			
UniRef90_B2VU20	A T E K S A E S G V V Q T L G G D H S I A L P A L R A L K E V Y G P P I A V V H F D			
UniRef90_W4HMD0	E E A L R Q G T A I F M G G D H A T V H G A A A H A A K V G K P P I F V L W L D			
UniRef90_W4F260	Q E V L E E D G K K F L M V G G E H L V S L P T I K A A Y E K Y P N L H L I H F D			
UniRef90_UPI000455DBD1	P I S L D G V N H P I T L G G D H S I T L P I L R S I H S V Y G P I S V I H F D			
UniRef90_Q0FKC0	K G I L E Q G Q A A M V T L G G D H S I T L P I L R S I H S V Y G P I S V I Q F D			
UniRef90_M2N7P6	P A T N A N K P G P I T T L G G D H S I T L P I L R S M N R A Y G P I T V I H F D			
UniRef90_B6Q3T5	P F T D A D K Q R V I T L G G D H S I T L P I L R S I N R A Y G P V T V I H F D			
UniRef90_D2Z6L8	R R I L L R R K A T P V V L G G D H S I S I G T I D G H V K E R Q D V A V I W V D			
UniRef90_W4WDB8	R Q V L R D G R Q A L I V I G G D H S I S I G T I D G H V K E R Q D V A V I W V D			
UniRef90_B5SEJ0	A H S V H E E H V P V V I G G D H S C A I G T W S G V A R P A G P P L G L I W I D			
UniRef90_X5VB42	G Q I V S A G I I P L S V G G D H S I T H P I L R A V G K G K R P V G L I H I D			
UniRef90_X6CBS6	S V L A E K G I L P V V C G G D H S I H G V T Y F V L R G T V T T S P V G F I Q F D			
UniRef90_A6TRI4	K E V V A S N K K P L M I G G E H L V T L P A I Q A V H E K Y Q D L I V L H F D			
UniRef90_Q1GHH8	E A A M A R G M P I F L G G D H A T V H G V A N H A A T V G R P P L F V L W L D			
UniRef90_F4FZL1	T E Y M K R S T L F L V G G D H S I T L P I L R T V K R V H G K V N L I H F D			
UniRef90_X8JTZ0	A K D G K F H P R I I A L G G D H A V I L P I L R S I H E V Y G E I A V I H F D			
UniRef90_C0EEX4	E K I L A D G K R P L M I G G E H L V T L P A V R A A V K K Y P D L H V I H F D			
UniRef90_F8JCJ5	T K V V E T G A F L C S L G G D H F I S Y P L L K A H A K V H G Q L T L I H F D			
UniRef90_UPI000441658E	S K D G K H H P R I I T L G G D H T I V L P I L R S I Y S A Y G E I S V I H F D			
UniRef90_E9EAG6	T S Q A S P W S H P V I G G D H S I V L P M L R A L N R V Y Q P I A V V L H F D			
UniRef90_W9C9W2	N R K S F T H P K I I S L G G D H S I A L A A L R A L Q K V Y Q P I A V V L H V D			
UniRef90_C3ZD81	S K I V A N G C K P L T L G G D H S I T L T Y P I L Q A I K T K V Y Q P I A V V L H F D			
UniRef90_C5DPG0	R T I L H K Q P P K I I T L G G D H T V T L M N L R S A Y E Q W G R L A V I H F D			
UniRef90_U5YMT0	T P Y Y R A G I V P L V L G G D H S I T L A E M R A M A A V H G Q I A V V L H F D			
UniRef90_UPI00045EA8DF	A A H Y A R G S H L V T L G G D H F I T Y P I L R A L A R L G Q Q P V A L V Q F D			
UniRef90_Q7VRG4	E N L L R F R K K I L L L G G D H Y I T L P V L R A Y S K F F G T I S I I H F D			
UniRef90_U2TCF7	H G I L M D G K K P F L V G G E H L V T L P V L R A M K E R Y D D L A I I L H F D			
UniRef90_S6F0J6	S K D P D Q P P R I I T L G G D H T V T L M N L R S A Y E N W G P L A V I H F D			
UniRef90_L0DIQ7	A H I L S Q G T L P M I G G D H S I G Y P I A R V A V A Q C E G K V G I H I D			
UniRef90_Q12BY7	N Q V V N A G V I P L A V G G D H S I T G S I L K A V G R D R P V G M V H I D			
UniRef90_I4Z1N8	L A A L T E G Q R P L I I G G D H S V S M G S V R H A A R D G K R V A V I W I D			
UniRef90_B1C5F3	K K I I L D A N K L P C M I G G E H L V S L P A I K A A A E K H P D L R I I I H F D			
UniRef90_C5L176	Y N A A S E G K F V L T L G G D H S I G C P T I A G I M R A R P E T C V I W V D			
UniRef90_G3XSJ4	T T T G T G K P K L I T L G G D H H L V A L P A L R A L R E S Y G P M A L L H F D			
UniRef90_UPI00035E1EAF	R E V V G K D R R L V T L G G D H T V A L P M L R A A R E K Y G S I A L V H F D			
UniRef90_A3V612	A Q K A A P Q G F P I F M G G D H A L A A G T V A G M A A H G R P F F A L W I D			
UniRef90_U2KKH3	K N I I L T D G R L P F I I G G D H L V S L P A I K A A A E K H P D L V V I H F D			
UniRef90_T1IIL6	Q D I L L Q N G D P V F T L G G D H S I A I G T I H G H A Q V Q P D M C L I I W V D			
UniRef90_K2E393	R E T L L D A G K Q W L G I I G G E H L V T Y P A I Q A Y V E K Y S D L A I V H F D			
UniRef90_UPI0003B668D5	R E I L L A S G A K M L T L G G D H Y I T Y P L L V A H C E R Y G P L S L I H F D			
UniRef90_M5FQB6	S A S S K F H P R V L T L G G D H Y I T Y P L L V A H C E R Y G P V V S V I H F D			
UniRef90_Q3IQJ3	A T V T A R G T M P V V I G G D H Y C T Y P A F Q G F A S D H S R I G L V Q I D			
UniRef90_E6U8R1	K R V V E A A G R Q P L M L G G E H L V T L P A L K A V H A K H P D L C V L H F D			
UniRef90_F9DSU1	A K I I L E D Q K I P C M I G G E H L V T L G A V R A A A K R Y P D L H V I Q F D			
UniRef90_H8X313	K G K V H E I P R V I T M G G D H T I T L M A L R N L Y Q W K K P I K V I H F D			
UniRef90_Q46EM0	K D L L N D G K L P I M L G G E H S I T F E A M V K A C A E L A G E D F G V L V D			
UniRef90_B2ATN4	S R D L S P V P R I I I N L G G D H T T T L S A L R A A Y K K W G K L S V I H F D			
UniRef90_M7WJW5	S S I L L A R H P K I V T L G G D H T V V L P I L R S L H K V Y G E I A V L H F D			
UniRef90_X6L320	R G I L L D A G A A C V P V V L G G D H S I V T L G A L R A H A V H G P L S V I Q F D			
UniRef90_UPI0003728309	S H V Y S R G V F P P V V L G G D H S I I G Y P T I R G I A P H D G N I G I I H F D			
UniRef90_W2RWI4	S R Q Y R R K P K L M T M G G D H S I L L P I L R A L H A I Y G P L S V L H F D			
UniRef90_S3DGL1	P N N E S M T A A P L M L G G D H T I T L A A L R S T Y A H W G V V S V I H F D			
UniRef90_C8Z7L8	K H S V T H P K I V T L G G D H T I T L P A I K A A Y E N W G K I S V I H F D			
UniRef90_UPI0004633912	E T I L K D D K L P F I I G G E H L V T L G S I R A A A R K Y P D L H I I H L D			
UniRef90_A3LWL7	L R R S S N S S R Y V A I G G D H S V L L P H R A L H E V Y G R I N V I H F D			

130 140 150 160

UniRef90_UPI00037D8CD7	A H T D T Y K E E V K Y S H G T M F Y H A P K E G L		
UniRef90_UPI000440FA85	S H L D T W K P A V F G G S P S E Q A A I N H G T Y F Y W A S Q E G L		
UniRef90_UPI0004161835	A H T D L R D Y E G E S Y S	H A T V M R R I C E	H A T V I K K
UniRef90_W9BFH7	A H A D L R E E Y E G E E L S H S T P V R K I C G L		
UniRef90_UPI0002F715B3	A H A D L R Q D Y M G E T L S H A T V M R R I C E	H A C V L R R C W E L T	
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UniRef90_D3T035	A H G D Y N T P A T S P S G N V H G M P L A A A H G R G S F A D D W A D		
UniRef90_F7ZJJ4	A H L D F V D E R H G V R H G H G N P M R R A A E Q S Y V S		
UniRef90_V7EFF4	A H S D L W P D D N P D R I D H G T M L Y K A V R D G		
UniRef90_A5E580	A H L D T W S P L K Y P S F W R T D Q N D L N H G S M L W Q A		
UniRef90_UPI0001FFE6E7	A H L D T W D T Y F G A D I T H G T P F R N A A E E G L L D P Q R C L H V G I		
UniRef90_H2C483	S H Y D F W D S H W G K K Y D H G T W L R R A L E E G L L		
UniRef90_U1MUQ6	A H L D T W D T L H G A S I W H G S P F R R A A E E G L L D L E R C Q H V G I		
UniRef90_U2EB52	A H T D L R D D Y A G E K L S H A T V M K R A W E		
UniRef90_Q2K9W6	A H Q D T W F D E E R R I D H G S F V A R A V R E G		
UniRef90_B2ZFL5	A H L D T W S P G R Y H S Y W V S E Q S R F T H G S F F H L A G		
UniRef90_K2NQL6	A H C D T G G A Y E G E R F H H G G P F R N A V L D G		
UniRef90_V2WB99	A H L D T W P S Y A G P T T D Q A T H G T F F Y L A N E E G L M S N R S I H A G		
UniRef90_A9E9E6	A H T D F H T P Q T S D S G N L H G T P L G Y V T G R E G F D G F P K		
UniRef90_Q493F1	A H A D Y Y D N D S K Y D H G V V I L H A L N E K L		
UniRef90_E9ESD8	S H L D T W K P K V F G G S I N H G T Y F Y H A S Q E G L L A N D S N I H A G I		
UniRef90_UPI0004633F40	A H T D T W A D D R M D R V D H G T F M Y K A V K L G		
UniRef90_F6B315	R H A D T M E K D M D E R M H T C P W F H A T N □ P N A P A T N L		
UniRef90_D5GMK5	S H L D T W V P K V F G G A P T E Q A S V N H G T Y F W H A Y		
UniRef90_G8AZ14	A H C D T G G P Y E G A K F H H G G P F R Q A V L D G		
UniRef90_F9X1P5	A H L D T W H P A K Y P T A W L N P D D S T F Q Q S F M T H G T M F W L A H		
UniRef90_UPI00035D73A3	A H A D T A G M Q E G T K F H H G G P F R E A V L A G		
UniRef90_Q1YIK6	A H C D T S G P F D G C K F H H G G P F R Q A V L D G		
UniRef90_T0CMY3	A H G D I N T F E T S E S K N V H G M P L A S L M G Y G D E T F K N L Y Y		
UniRef90_N1Q0H4	A H L D T W H P A K Y P S A W I D P E D P S Q Q S F F T H G T M F W L A H		
UniRef90_G7XYB3	A H L D T W N P V R Y S A Y W T S E Q A H F N H G S F F H K A S R E G L		
UniRef90_W9A2P8	A H T D T Y D Q Y S Q G S R Y D H G T M F Y H A P R E G L		
UniRef90_UPI0003105392	A H A D L C D D Y L G E K Y S H A T V I R R V C E		
UniRef90_K4LDU9	A H A D L C D D Y L G E K Y S H A T V I R R V C E		
UniRef90_K9NHJ4	A H L D F V D E R H G V R Y G H G N P L R R A S E		
UniRef90_G8ZPA6	S H L D T W S P S K Y P S Y W H S K S S K F T H G	S M □ W M A K	
UniRef90_X7EDX7	A H S D F H T C K T T D S G N L H G T P L A Y L T G	R K G F P G F P S	
UniRef90_B2VU20	A H L D T W H P A K Y P S A W L D E S S L S F N H G S M F W V A S T E G L		
UniRef90_W4HMD0	A H S D F H T C E T T E S E G N L H G T P L A Y V T G R S G F P E F P E		
UniRef90_W4F260	A H T D L R E D Y L G E K L S H A S V I R R C H E		
UniRef90_UPI000455DBD1	S H L D T W K P S V F G G A I N H G T Y F Y W A S Q E G L I K N G S S I H G A L		
UniRef90_Q0FKC0	A H T D T W A D D D F D R I D H G T F M Y K A V K L G L		
UniRef90_M2N7P6	S H L D W R P K V F G G A P S N H G T Y F F H A S Q E G L		
UniRef90_B6Q3T5	S H L D T W K P K V F G G S I N H G T Y F Y H A M E G L R R N D T N I H A G I		
UniRef90_D2Z6L8	A H L D L W S M A P G G Q R F G N G S P M R R M S E M D H I G P M		
UniRef90_W4WDB8	A H A D L I N T N K T S E S G N V H G M P V A L L T S E L A D Y W P Y L P G M D W		
UniRef90_B5SEJ0	A H L D S H T P Q T S D S G A I H G M P L A A L L G H G P R E L T Q V R D		
UniRef90_X5VB42	A H C D T G A P F D Q T K F H H G G P F R N A V F D G		
UniRef90_X6CBS6	A H P D T N D E L Y G D R Y N H G T L L A R G V E E G L		
UniRef90_A6TRI4	A H A D L R A H Y L G E K L S H A T V M G R		
UniRef90_Q1GHH8	A H S D F H S L E S T E T G N L H G C P V R Y F T N Q A R F D N F P P V P N P V		
UniRef90_F4FZL1	S H Y D F W D S H W G K K Y D H G T W L R R S L E E G L L	M F W T A M	
UniRef90_X8JTZ0	S H L D T W P V L G Y Y G N K D S S V V T H G T		
UniRef90_C0EXX4	A H A D L R D D Y L G A T L S H A T V L H R		
UniRef90_F8JCJ5	A H T D T W T P R V G R D G S N H G T M F A Q A □ D D G L		
UniRef90_UPI000441658E	S H L D T W K P S F G G A P S H H G T Y F Y W A S Q E G L I K N G S S I A S V Y		
UniRef90_E9EAG6	A H I D T M A P D S Y P R K A W K S Q A S E I N H G T V F W L A A		
UniRef90_W9C9W2	A H L D T W H P A K Y P D P W N H G S M F W L A S N E G		
UniRef90_C3ZD81	A H A D T S D K Q L G E K I S H G T P F R R A V E E G L L D C Q R V L Q I G L		
UniRef90_C5DPG0	S H I D S W D P R T K S T A L N H G T F L H Y A H E K G Y L A P N N S I H V G I		
UniRef90_U5YMT0	A H G D V L D D Y Y G V K H F H G T M F R R A V E E G V V D P S F S I Q L G		
UniRef90_UPI00045EA8DF	A H Q D T W D D N G D R V D H G T M I T R A V K D G L		
UniRef90_Q7VRG4	A H A D Y Y D N N N Q Y D H G A V I L Y A L H E		
UniRef90_U2TCF7	A H T D L R E E Y L G A R L S H A T V M R R A W E L		
UniRef90_S6F0J6	S H I D S W D P K I L G G N I N H G T F L H Y A H E K G Y L A D N S S I H V G I		
UniRef90_L0DIQ7	R H V D T Q E K D M D E I M H T C P W F H A T N □ P N C P P S N L		
UniRef90_Q12BY7	A H C D T A G T Y E G S K F H H G G P F R E A V L A G		
UniRef90_I4Z1N8	A H P D F N T P Q S S P S G N M H G M S L A F L A G D E D L A E □ M R G R		
UniRef90_B1C5F3	A H T D L R D E Y L G E K L S H A S V I R R A Y D L		
UniRef90_C5L176	A H G D C N H P E T S P S G N Y H G M P A A H V M G W F E K R A R G F E W L E H		
UniRef90_G3XSJ4	S H L D S L H P D R Y P S A W T S M Q S Q F N H G S V F W N A M K E G L		
UniRef90_UPI00035E1EAF	A H L D T W D T Y F K A P I T H G T V F R R A F E E G L L A E E K S M H L G I		
UniRef90_A3V612	A H S D I H T P D T T D S G N L H G T P V G Y V T G R R G F D A F P P		
UniRef90_U2KKH3	A H T D L R D E Y L G N H L S H A T V I R R		
UniRef90_T1IIL6	A H A D I N T A T T T N S G S M H G M V N S F H L H E L E P F K V D L P G F D W		
UniRef90_K2E393	A H A D L R E E Y L G E C L S H A S V M R L A T N L		
UniRef90_UPI0003B668D5	A H C D T W A D D N P D S L N H G T M F Y K A V K E G L		
UniRef90_M5FQB6	S H I D A E H W Q P G P W L P G E E V P V N H G S Y F W Y A		
UniRef90_Q3IQJ3	A H S D T V D G S A A F G E H F H G S T T H H I A		
UniRef90_E6U8R1	A H T D L R A D Y L G E P L S H A T V L R R V W D E		
UniRef90_F9DSU1	A H T D L R E D Y L D Q P L S H A T V I R R		
UniRef90_H8X313	S H I D T W D P K T N Y M S L N H G T F L H Y A H E N G F I G D Q G N Y H V G I		
UniRef90_Q46EM0	A H F D L R E E Y R G F K Y N H A C V S R N I L S E V		
UniRef90_B2ATN4	A H I D T W N P K S D Y G A V N H G T F L H I A H E E G L I T N S S I H A G I R		
UniRef90_M7WJW5	A H L D T W N G N I L Y K G A W T D Q S K V T H G S F F W K A S		
UniRef90_X6L320	A H T D T W A D D D P G R V D H G T F L Y T A A K E G		
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170 180 190 200

V D P E R S V Q I G I R T	E Y N P E G H G Y Q V L D A D T V N		
I R N G S S I H G A I R T T L	S G P A D Y V N D D E V G F Q R I E A R E I D		
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V C D A I G P D R V Y Q F G I	R S G T R Q E F Q W A R A H	G M R E E F Q F A K E S G M H M T K Y D	T
UniRef90_R6D3T3	UniRef90_D3T035	UniRef90_F7ZJJ4	UniRef90_V7EFF4
W I K P G N L Y Q F G I	R S G T R D E V Q F A R E F G H L Y P H	G R T H V K T N R F D	
UniRef90_A5E580	UniRef90_UPI0001FFE6E7	UniRef90_H2C483	UniRef90_U1MUQ6
G N G K I F Q F G I	R S G D R E E F T W	G R T H V K T N R F D	
T D A V S E N T V L V G I	S L D D E E R A A L R E S E A T V F T M R E I D		
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G L T Q V G I R N V S	S T A R E G Y A D A R A M G S Q I I S V R Q A R	G V N V L T A R E L H	
Y V D P K R S L Q I G I	R T T T E D Y L	G V N V L T A R E L H	
H E E G L T T N R N V I H A G V R T S G I E D Y Q D D D A Q N W V R I E A D D I W	D D E V E D V L G F Q V I G T D A F Q		
R G P L Y G E H D L T			
E E V V Q I G R V F S H E D V E D S K R L G I T S F S I R E V K			
R G G V Y D P S E L	D D D A R V G F A I I R S D D F A		
F V G D G R I Y Q F G I	R S G L K E E F K W A E T H		
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Leg	L S N T S V H G G L R T G L E D Y T N P G P E Q A F Y R I H A D D I S		
V L D P T R T L Q I G I	R G S A E Y I W E F S R L S G M T V V H A R D I S		
I R C K L G G	V E D L E N D E N V G F Q L I S T D D I D		
I E T P L P H D N I A M I G L R S V D A L E R A A L Q E T T V T Y V D M R E I D			
I D P V H S I Q I G I	R T E Y K K C F	G F T V L D V E Y I N	
R T T L S G P S D Y D N D G Y		C G F E I V E A R E I D	
I V D P A R S V Q V G I R T	H N D D T M G F H I I D A P E V H		
V Q I G I G G W Q V A R G A V K	V A R E N R T T I I S V G D A E		
K E G L L K N N T N I H A G I R T T G P S D Y E N D A V V G F N L I E A H E I D			
V L D P E R T V Q I G I	R G S T E Y L W E F S Y D S G M T V I H A E D I P		
N E S L L L P H K S V H A G L R T S G A E D D E D D D A Q G W S R I A C D D I D			
A L D P A R T I Q I G I R G G G A G W L W E F S Y D S G M T V I P M D E V D P			
V L D P E R T I Q I G I R G A S E Y L W E F S F E S G M T V I H A E E I P			
N D I K I N E D N V Y H I G G R D L D S G E K S F I E N T N M M F Y P K D L K			
N E S L L L Q E G K S V H A G L R T S N I G D N E D D T A Q G W S R I A C D D I D			
I C N S T S A H A G L R T R L T G V D D S D Y T N P G E Q G F M R I H A D D I D			
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I D P S S S I Q I G I R T	D Y D K D N H A F N V I C A E A A I		
I V G A G N V Y Q F G I R S G T K E E F E Y G R S C T V F Y			
M N H I V V G M T Q M G I R N V S S S N R D D Y E A A H E A G S K I L S V R D V R			
Q E G L L L S E H N V L R T R L S G V D W E D Y E D D D V G F H R I E S D D I I			
V P H P I P E E Q V A I I G L R S V D G P E R I A L E A S R I R R H D M R Y I I D			
I A N G S S V H A G L R T R L S G D G P E D Y T D D S Q Q G W H R I S T D D L D			
V P H P V P E E R V C I V G L R S V D G P E R A A L E A T S I R R H D M R D I D			
F L G D G R I F Q F G I R S G L K E E F E W A K E H T Y M E R F S			
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L K N D T N I H A G I R T T L S S D Y E N D G Y C G F H I V E A R E I D			
R T T L S G P S D Y D N D G Y V	G F E I V E A R E I D		
T Q I G L R G V G S S R K E D F D D A R E Y G S R L V T A S E V			
Q M P I L S I R N V A Y I G L R S D R Y E R L L I I E K F G I T A Y G M E D I E			
A N P K L L P Q H V V V I G A R S Y E P A E R A L I D R L G V R V I D A G E V A			
V L D P T R T I Q I G I R G F S R E D R A F N E K H G M R V I D F D E F E			
V W D F L G D E R I I Y Q F G I R S G T Q E E F K W S A E G H T F M N K F G			
P P E N V C M I G L R S V D T P E R E A M E Q V G I H R H D M R D I D			
N R V I Q I G I R G F S H E D V E D G K R L G I S S F T R E V K			
T E G L I A K G N S I H A G I R C K M T G L E D I E H D Q G F S M I T T D D I D			
V W D L V G D G R I I F Q F G I R S G D K S E F D W G R E H V S T C K F D			
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Q E G L L R P G H L V H A G G V H I S S L Q D F H S D E S I G F L R I A A E E M D			
I L I N G S S V H A G L R T R L S G D D Y A D Y E D D D R Q G F R I S A D D I D			
R G T G Y S S D D Y G W S R Q Q G F R V V Q A E E I W			
R A P P L G P D D E K H D F E C G F E K I V A R D I D			
M R G S V H P D D V G S G E A L G Y D V V P W P E L A			
I R V D R S I Q V G I R T H A P R S Y G I E I V H G N V A G			
K L I N P N R S V Q I G I R T E Y D K N F G F T V L D A E Y V N			
V G D G G L F Q F G I R S G E R A E F Y W A R E H T Q L Q K F D			
R S P F I A P G D E K H D F E C G F E K I V A R D I D			
V Q L G I G G W Q V P R A G V K V G R D R G T T I L T V N D I E			
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V G D H R I Y Q F G I R S G E R T E F Y W A K E H T F L N K F N F N N L			
L S H P L K E D R I A F I G L R D I D P E E R R L L R Q S R V K C H T M T D V D			
I S N S S S L H A G I N T R L S G N S F Q D L D D D K Q G F L R I A A D E V D			
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L P V R V E P A N I C M I G L R S V D T A E H E I L A R G D V E L V D M R R I D			
V W D F L L G D G R I H Q F G I R S G E R A E W Q W A R E G H			
I K P S L R A K D I V Y I G L R D V E P L E R L I L E K Y G I R V F A M H D V D			
I G A D N L V Q I G I R S G T K E E F D W M T E H N S L I			
I D P Q R S V Q V G L R T W N D D F M G I P R L D A P T V H			
A Q E G L L A P P N N I H V G I R N A L Q S W K D Y D Y E V G F V I S H A D D I E			
Q T A Y T D F D H I A Q V G I R G Y S P D F F E F A D E N G L S V Y T M R D V E			
I W D L L L G D N R I Y Q Y G R S G D R P E F E W A K T H T H L H P F D L D G L			
R A P L I D P G F D S R H D A E C G F N V I E A T S I D			
T K N L V S I G R S G P E E E W V F A R E N N L Q Y Y T A D D V E			
A P L A H P V K D M K N D R R C G F D F V T S R D L D			
T E G L I S N T S S I H A G I R T S E F E D L T H D S E V G F K L L T T D D I D			
I V V P E R S V Q I G I R T D N P D T M G F H I L D A R E V H			
V Q I G I G G W Q S P R A G V K V G R E R G T S I M T I G D V E			
K E G L V V A N A S S V H A G A R I N D Y T D F D D D T D Q G W H R I F V D D I D			
E E G L I S N D S S I H A G I R A P L G T R R D D L D Q C G F E V T A R D I D			
I H A A I R G P Y P G K K D V E H D I S C G F D R I L A R D I D			
I L G N G R I H Q F G I R S G E K D E F E W A K S G H T S L H P F D			
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210 220 230 240

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UniRef90_N1Q0H4	D L G F A G V A N K I V E H V G T E T P V Y L S I D I D V I D P G M A P G T		
UniRef90_G7XBY3	D L G P M G I V N R I I E R I G L L D S D Q P V Y L S V D I D V L D P A T A P G T		
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UniRef90_U5YMT0	U S T A P E E V G R G R I A A R V R D R K V L V S F D I D F L D P A Y A P G T		
UniRef90_UPI00045EA8DF	E M G P A A I A R Q I C E R V G D A P V Y L S F D I D A L D P A F A P G T		
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UniRef90_E6U8R1	R R G V R P V I E D A V T A A A A D T D A V Y V T F D I D A V D P A A A P G T		
UniRef90_F9DSU1	D T A L D A I G S R P V Y V T I D L D P S V F P G T		
UniRef90_H8X313	F D G L E N T V K K L Q G K P V Y V L T I D L D P S V F P G T		
UniRef90_Q46EM0	R I G V Q G I I K E L V E S Y T N D D G T P V Y V I S V D I D V L D P A Y A P G T		
UniRef90_B2ATN4	S T G M V I E I L K E A L E W L D C S Q I Y L S L D M D A D P S Y A P G L		
UniRef90_M7WJW5	R F G I S G I I E R L K S R V G D A K I Y I S V D I D V L D P A F A P A T		
UniRef90_X6L320	E L K P S G I I K A I K E R V G N M P V Y L S L D M S M D P S T A P A S		
UniRef90_UPI0003728309	U A G P E R I A E Q V H Q I V G R S A C Y I T F D I D A L D P A F A P G T		
UniRef90_W2RWI4	R V G V E K I A E T A L E E L A W K G A K A V Y L S S V D I D V I D P G S A P P G T		
UniRef90_S3DGL1	D M G V S G V I E S I I L N R V G S Q N P V Y I S V D I D V I D P A F A P G T		
UniRef90_C8Z7L8	R I G T Q G I I D Q L K K R V G G N N V Y I T V D I D V L D P A F A P G T		
UniRef90_UPI0004633912	L E G G L E E T V E S L K G K P V Y F T L D L D P S V F P G T		
UniRef90_A3LWL7	L K G P Q W V V Q K I L D T V P D D S P T Y I S V D I D V L D P G F T S G T		

250 260 270 280

UniRef90_UPI00037D8CD7	G T P [V]GG LSSNK VLQ I L RGI ADL N IVG YDL VEV A P A Y D H
UniRef90_UPI000440FA85	G T P E T G G W S T R E L R T I I R G L D G L N F I V S A D I V E V A P A Y D T
UniRef90_UPI0004161835	G T A E H G G I T P Q E A F R A I Q L L S R L N K V I V G F D L V E V A P Q I D P
UniRef90_W9BFH7	G T A E A A G G I T S K E L L K A I Q L I S E S E K V I V G A D L V E V A P A Y D H
UniRef90_UPI0002F715B3	G T P E P G G I S S R E A L E A V R L L K G L Q V V S M D L V E T M P A Y D L
UniRef90_R6D3T3	G T P E P G G V S F D E L R R A V T L V C S K L R I V G C D V N E L S P P H Y D Q
UniRef90_D3T035	G T P V R G G V N Y R E A H A A L E L V A E R D R I R S M D V V E E V A P D Y D P
UniRef90_F7ZJJ4	G T P S H G G F L Y Y E V L E L L Q G V A G R N P I I G L D L V E E V A P D Y D P
UniRef90_V7EFF4	G T P V W G G L H S W Q A A A I L R D D L A G I N M V G G D V V E E V S P P Y D T
UniRef90_A5E580	G T Q E S G G W L P R E L I H I L R G V E E L T I V G A D V V E E V A P A Y D H
UniRef90_UPI0001FFE6E7	G T P E A G G G L T T R E E L L H V L R S L V G V D V V G A D V V E E V A P A Y D H
UniRef90_H2C483	G T P E V G G L T S F E A L E L V R G L P V E L V G F D V V E E V S P P Y D V
UniRef90_U1MUQ6	G T P E V A G I I S T R E E L F G V L R E L I R G L D V V G G D V V E E V L P A H D H
UniRef90_U2EB52	G T P E P G G L T F H D L Q D A I L M F R D L N V V G A D V V E E L S P P H Y D Q
UniRef90_Q2K9W6	G T P V A G G P S S A K I L L S V L Q R L H Q L D I R G A D V V E E V S P P Y D H
UniRef90_B2ZFL5	G T P E P G G W T T R E F I R I L R G I E K L N I V G A D V V E E V A P S Y D N
UniRef90_K2NQL6	G T P E V G G G L T T R E A L E L I R G M R G V N V L V G G D V V E E V A P A Y D P
UniRef90_V2WB99	G T P E A G G W T T R E V K R I L R G L A G L N F V G A D I V E E V T P S Y D I
UniRef90_A9E9E6	G T T V P G G A T V R E G H L V M E M L H D S G L M T S L D L V E E L N P F L D E
UniRef90_Q493F1	G T P V I G G L T S Y R V L K I R G F Q H L N I I G I D L V E E V A P A Y D C
UniRef90_E9ESD8	G T P E T G G W S T R E L R T I L R G L E N N L I I A A D I V E E V A P A Y D T
UniRef90_UPI0004633F40	G T P V W G G L S T A Q A A A I L R G I A G I N L L G G D V V E E V S P P F D I
UniRef90_F6B315	G Y P E P G G F T P R E A L K L L Q L V A K E G C A M E V V E E V A P Q Y D I
UniRef90_D5GMK5	G T P E T G G W S T R E L R A I I R G L D G L Q V G A D I V E E V A P A Y D T
UniRef90_G8AZ14	G T P E V G G G L T T R E A L A I L R G L D G L D V V G A D I V E E V A P Q Y D A
UniRef90_F9X1P5	G T P E P G G W T T R E L I R V L R G I E G L N V V G A D V V E E V S P A F D G
UniRef90_UPI00035D73A3	G T P E A G G F T T R E A I A L L R G L A G L D V V A G D V V E E V A P Q Y D A
UniRef90_Q1YIK6	G T P E I G G G L T T R E V Q M I L R G L A G I N M I G G D V V E E V A P Q Y D A
UniRef90_T0CMY3	G T R V E N G F T V D E S K Y L L K K L V E S G L V K S M D L V K L N P I L D V
UniRef90_N1Q0H4	G T P E P G G W T T R E L I R V L R G I E S L N V V G A D V V E E V S P A Y D G
UniRef90_G7XBY3	G T P E P G G W T T R E F I R I L R G I E K K L N I V G A D I V E E V S P S Y D N
UniRef90_W9A2P8	G T P V C G G G L T S D K A L K I I R G L Q G I N N V G M D V V E E V A P A Y D H
UniRef90_UPI0003105392	G T P V I G G M T S D K A L R I L R G L D G L V V G M D V V E E V S P P F D H
UniRef90_K4LDU9	G T P E P G G G V T P Q E L F R V F E L L E G C R I V G C D F V E L A P V Y D R
UniRef90_K9NHJ4	G T P S H G G F L Y Y E V L E I I Q A L A K K G N I V G M D L V E E V A P P V Y D P
UniRef90_G8ZPA6	G T V E A G G W L T R E I I Y L R S L E D Y P V G A D V V E E V S P P F D Q
UniRef90_X7EDX7	G T T V P G G A T V R E A H L A M E L L Y D S G L V T S M D L V E E L N P M L D E
UniRef90_B2VU20	G T P E P G G W T T R E L I R I L R G I E G M N V I G A D I V E E V S P A Y D G
UniRef90_W4HMD0	G T T V P G G A T V R E A H L A M E M I H D A G C L A S L D V V E E L N P M l D E P
UniRef90_W4F260	G T P E P G G G T Y R E L L E A I N Q F T L K Q I V A A D V V E E L S P P Y D P
UniRef90_UPI000455DBD1	G T P E T G G W S T R E L R T I L R G L D G L H V S A D I V E E V A P A Y D T
UniRef90_Q0FKC0	G T P V W G G L T S H Q A A V M L R G L A G I D L K G G D V V E E V S P P F D T
UniRef90_M2N7P6	G T P E T G G W S T R E L R T I V R G L D G I N L V A A D I V E E V A P A Y D T
UniRef90_B6Q3T5	G T P E T G G W T T R E L R T I V R G L D G L N F V G A D I V E E V A P A Y D T
UniRef90_D2Z6L8	G S P P M P A G L Y Y Q E V A A I L R G I A R R R F D V A C L D L V E E V A P Q Y D P
UniRef90_W4WDB8	G V P V R G G L S L R E A I H L M E E I S R T H R L N A I D L V E E V N P Q I G
UniRef90_B5SEJ0	G S P E P G G L T G Q D M T Q A L A A C A R D A R F F A A F E L V E E Y N P R H D K
UniRef90_X5VB42	G T P E I G G G L T T R E A Q A I L R G M K G M N L V G G D V V E E V A P Q Y D A
UniRef90_X6CBS6	G S P E P G G G L T M R D A Q V V L R G L E G L D L I V G A D M C E V S P P L D P
UniRef90_A6TRI4	G T P E P G G G L S F T D M M R I I K K L S I L N V I G A D I V E E L A P P D Y D P
UniRef90_Q1GHH8	G T T V P G G A T V R E G H L V C E I L H D S G L M T S M D L V E E L N P F L D E
UniRef90_F4FZL1	G T P E V G G G L S S F E A L E I I R S L I N V Q L V G F D V V E E I S P P Y D V
UniRef90_X8JTZ0	G T P E P G G W A T R E V K R I L R G L A G L N V V G A D V V E E V A P A Y D T
UniRef90_C0EXX4	G T P E A G G G V S F L Q I L L D A I Q T V G R L Q N L V G C D V N E L S P P V Y D Q
UniRef90_F8JCJ5	G T P V T G G L M P R E L L A M I L R Q L D G L K I V G C D V V E E V A P S Y D Q
UniRef90_UPI000441658E	G T P E T G G W T T R E L L R A I I R G L D G L F I V S A D I V E E V A P A Y D T
UniRef90_E9EAG6	G A P E T G G W T S R E V I R L M K V M T V L S D D L N V V G V D I V E E V S P A Y D S G
UniRef90_W9C9W2	G T P E P G G W T M R E V I R L T R G I E G L N V V G A D V V E E V S P S Y D G
UniRef90_C3ZD81	G T P E I G G G L T S H Q G L E I I R G C R G L N L V V G G D L V E E V S P A Y D P
UniRef90_C5DPG0	G T P E P G G F S A R E I L T I L D G L E E G L N I V V G A D D V V E E V A P A Y D T
UniRef90_U5YMT0	G T P E V G G G P S S Y Q A L Q L R A L G P L D Y A G F D I V E E V A P A Y D H
UniRef90_UPI00045EA8DF	G T P V C G G G L S T R E V I A C L R R L G A L D L K G F D V V E E V S P P Y D H C
UniRef90_Q7VRG4	G T P V I G G G L T T S C A L Q I I R G F Q K L N I I G I D I V E E V A P V Y D C
UniRef90_U2TCF7	G T P E P G G V T F L D L L G A V R C V L R H D P I V G C D M V E E L S P P H Y D A
UniRef90_S6F0J6	G T P E P G G F S A R E I L T I L D G L E G I N V V G A D V V E E V A P A Y D T
UniRef90_L0DIQ7	G W P E P G G G L L P R E A L K I I N G I A K E G V C E E V S P P Y D I
UniRef90_Q12BY7	G T P E V G G G L S P R E V L T I L R G L A G L N V V G G D V M E V A P Q N D P
UniRef90_I4Z1N8	G T P V P G G G L N Y R E A H Y I M E L L H D S G L V G S L D V V E E L N P M R D I
UniRef90_B1C5F3	G T P E A G G V N F H E L L D A I I K V S S L N V V A M D I N E L S P I Y D S
UniRef90_C5L176	G T K A K A G G G L T Y R E S H Y I C E R L A M T Q G L L G S M D L V E E I N P I M D
UniRef90_G3XSJ4	G A P E P G G W T T R E M I K I L R G V M D L N I V V G A D I V E E V A P A Y D P
UniRef90_UPI00035E1EAF	G T P E M G G F T S R E L L H L L R R R L D G L N L V V G A D D V V E E T A P A Y D H
UniRef90_A3V612	G T T V P G G A T V R E G H L V M E M L S D S G L V T S L D L V E E L N P F L D D
UniRef90_U2KKH3	G T P E A G G V T F V E L M K A A L S V I R G C H V A C D M V E E L S P P L D P
UniRef90_T1IIL6	G T S G L L T G L D L V E E V N T A I G
UniRef90_K2E393	G T P E A G G G M S F N E L I S W L R A V S G L N I V V G A D V V E E L S P H Y D H
UniRef90_UPI0003B668D5	G T P V P G G G L S S A Q A L G I V R Q L G Q V N I L V G M D V V E E V S P P F D Q
UniRef90_M5FQB6	G T P E I G G F T T R E V K H I L K G L D G L K I V V G A D V V E E V A P A Y D T
UniRef90_Q3IQJ3	G T P E P G G G L T A S Q A L A V M D V L G A H D A V V G A A D L M E V A P P T H D P
UniRef90_E6U8R1	G T P E P G G V T F R E L L A A L C K L R R L R I V A G G D V V E E L A P P H Y D A
UniRef90_F9DSU1	G T P E A G G G V S F T D L L T A I L T V S D L N I V A C D V N E L S P P V Y D Q
UniRef90_H8X313	G T M E V G G F T S R E L L A I L D G L R G T E L L V G A D D V V E E V S P P Y D T
UniRef90_Q46EM0	G T P E P F G L S A R D V R T A I R T L A P F S M A F D V V E E I A P E Y D
UniRef90_B2ATN4	G T A E P G G W T S R E L L T I L D G L V G L K V V G A D D V V E E V A P A Y D G
UniRef90_M7WJW5	G T P E S G G G W T S R E L L K S I L R G L S S L N L V V G L D I V E E V S P P G Y D T
UniRef90_X6L320	G T P V W G G G L T S H Q A A V M L R R L A G V N M V G G D D V V E E V S P P F D T
UniRef90_UPI0003728309	G W P E P G G G L L P R E A L N L I R L I S A A G S G L E I V E E C S P P Y D
UniRef90_W2RWI4	G T P E P G G W T T R E L L I R I L R G L E N L N I V V G A D D V V E E V S P S Y D A
UniRef90_S3DGL1	G T S E P G G W T S R E L L T I L D G L V G L K V I G G D D V V E E V A P A Y D N
UniRef90_C8Z7L8	G T V E P G G G W T S R E L L T V L D G L D G I N V I G G D D V V E E V S P P Y D T
UniRef90_UPI0004633912	G T P E P G G G D Y M T L Q R A V I A V C Q N V C G C D V N E L C P P Y D A
UniRef90_A3LWL7	G T Q E P G G G W L P R E L L H V L R S I E G L T V V G G D D V V E E V S P A F D T

290 300 310

UniRef90_UPI00037D8CD7	A E I T S L A G A S L A L Q F L Y M H A A K R	
UniRef90_UPI000440FA85	N A E L T T M A A A D V L F E V M S V M A K T P L G K	
UniRef90_UPI0004161835	S E L A Q I L A A K L V R E A L L A	
UniRef90_W9BFH7	S E K T A I A A S K F V R E M L L A	
UniRef90_UPI0002F715B3	S Q R S A V L A A K L V R E A L L A	
UniRef90_R6D3T3	S G V S T I V A C K I V R E M L L A	
UniRef90_D3T035	D N Q T A E V A A E L A A S A F G K R	
UniRef90_F7ZJJ4	T G C T S I L A A Q L L N T I G F I F H A R	
UniRef90_V7EFF4	T G A T A V A G A H V A Y D L I C L Y H W A R T Q R	
UniRef90_A5E580	S E V T A T N G A Q M A F E I L T S M V K K G N	
UniRef90_UPI0001FFE6E7	A E I T G I A A A H V A Y E L L S V L A A N R K G	
UniRef90_H2C483	S E L T T M L A M S N L I Y E A M S L K A R L E R R G	
UniRef90_U1MUQ6	A G I T G L A A A H T V W E L L A L	
UniRef90_U2EB52	T G K S T A V A C K T L R E L M L A	
UniRef90_Q2K9W6	A D V T A I A G A T V A M Y M L G L R A E R R A	
UniRef90_B2ZFL5	K G E T T A L A A A Q V A F E I L S T L V K A G A G K D	
UniRef90_K2NQL6	T T N T A Q N G A Q M L F E L L S V M M F S P S R R D R R N A G	
UniRef90_V2WB99	A E I T G I A A A D L V H D F L S M L L	
UniRef90_A9E9E6	R G R T A Q L M V D L T A S A F G R R V F D R P T	
UniRef90_Q493F1	A Q I T A L A A A T I G L E M L Y	
UniRef90_E9ESD8	N A E H T T M A A A D V L Y E V M S I M	
UniRef90_UPI0004633F40	T G A T A I A A A H V A M E L I C L W G W T R R	
UniRef90_F6B315	S D I T A M L G V R A I L E V L G V M	
UniRef90_D5GMK5	N A E L T T M A A A D V L F E V M S V M	
UniRef90_G8AZ14	T T N T A T H A G A Q M L F E I L C L S V R A L A N R Q	
UniRef90_F9X1P5	A G E V T A L A A A Q V V F E V L T S V V K R	
UniRef90_UPI00035D73A3	T T V T A Q A G A Q M L F Q I L C L M V L A P G F H	
UniRef90_Q1YIK6	T T N T A H A G A Q M L F E L L S L L	
UniRef90_T0CMY3	D D T T S N I A L D I I	
UniRef90_N1Q0H4	T G E V T A L A A A Q I A F E V L T N M V K R	
UniRef90_G7XBY3	K G E T T A L A A A Q V A F E I T S M V K A	
UniRef90_W9A2P8	A D I T A L A A T I A T D L L H L	
UniRef90_UPI0003105392	S E I I T A L A A T I A T D L L H L W A S K	
UniRef90_K4LDU9	S G I T S L L A A K L V R E A L L A F S R G V E G R N S P T G	
UniRef90_K9NHJ4	T G M T S I L A A Q L L L N S I L G F I F H E R G K V R A A	
UniRef90_G8ZPA6	S E I T A I A S Q I A Y E L L T S M	
UniRef90_X7EDX7	R G R T A Q L M V D L A A S A F G R R V F D R P T	
UniRef90_B2VU20	A A E T T G L A A A Q V A Y E V L T S M V R K G	
UniRef90_W4HMD0	R G R T A Q L M V D L A A S A L G R T V F D R P T	
UniRef90_W4F260	S G A S T A M A C K T K I T R E L L T L	
UniRef90_UPI000455DBD1	N A E L T T M A A A D V L Y E V L V S V M	
UniRef90_Q0FKC0	T G A T A I A G A H V A T E L L L C L W G W T R R	
UniRef90_M2N7P6	N A E L T T M A A A D T L Y E V M S I M	
UniRef90_B6Q3T5	N A E L T T M A A A D V L Y E V L T I M	
UniRef90_D2Z6L8	S G A T C R I A A M T L L E F M G H L K R R E G	
UniRef90_W4WDB8	N K Q D V K M T V Q A A I Y V I Q A A I L G Y S R R G L K V P	
UniRef90_B5SEJ0	G G I T A R L A L D L L G A V A G A L H A Q R R	
UniRef90_X5VB42	T A N T A H A G A Q M L F E I L L S L M	
UniRef90_X6CBS6	Q G V T A L N G A N I L F E L L C	
UniRef90_A6TRI4	T G V S T A V A S K V I R E M L L I L	
UniRef90_Q1GHH8	R G R T A H L M V D L C A S A M G R R V F D R P T	
UniRef90_F4FZL1	S E L T T S M L G A N I I Y E A M S L K A R L K N G	
UniRef90_X8JTZ0	N A E T T S L V A A D I I H E M L S I M I G K R	
UniRef90_C0EEX4	S G V S T A V A C K V L R E L V L A	
UniRef90_F8JCJ5	G G V T A L A A A T V V Y E Q A C R V A R Q N G	
UniRef90_UPI000441658E	N A E L T T M A A A D V L F E V L V G V M A K T P L G K V K	
UniRef90_E9EAG6	A G G D T A F A A A V N L A Y E A I S L M I Q R E M K	
UniRef90_W9C9W2	A G G E T A L S A A Q V V F E M L T S I V K R	
UniRef90_C3ZD81	S G N T A L T A A N L L F E M L C V L P G V Q R R G	
UniRef90_C5DPG0	N G D I T T S T L A A S V V D S L I L G L M	
UniRef90_U5YMT0	A D I T S H A A S V I A F E L L G Q L A L R R R A	
UniRef90_UPI00045EA8DF	A E I T A L A A G A T L A S I Y L C L L A E R K E G G R S P	
UniRef90_Q7VRG4	A Q I T A L A A A T L G L E M L Y	
UniRef90_U2TCF7	S G A S T A A A A L K L L R E M L L A	
UniRef90_S6F0J6	N G D I T T I I A A S V V D S L I L G L M	
UniRef90_L0DIQ7	S D I T S L L M G V R L M M D V L G T M A K N G R I G G R L K V	
UniRef90_Q12BY7	S G N T A L V G A Q M L F E I L C L	
UniRef90_I4Z1N8	Q G Q T A S L M V D L V G S L F G K A	
UniRef90_B1C5F3	S G A S T A I A C K V L R E L L L A M	
UniRef90_C5L176		
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UniRef90_A3V612	R G K T A N L M V D L T A S L L G R R V F D R P T	
UniRef90_U2KKH3	S G T S T A T A L K L L R E M I L A L	
UniRef90_T1IIL6	S P L D Q Q K T L F A A N Q T L L A F C G N N R A G N	
UniRef90_K2E393	S G V S T V T A A K V V R E V L L L	
UniRef90_UPI0003B668D5	S E I T A I A A A H I A C D L L C L L	
UniRef90_M5FQB6	Q A E V T M I A A A N L G R D M L A L M A R T	
UniRef90_Q3IQJ3	T G N T A R L A A A Y L L V T L L	
UniRef90_E6U8R1	S G V S T A V A C K V V R E L A V A M	
UniRef90_F9DSU1	S G V S T A V A C K V V R E L T I A L	
UniRef90_H8X313	N S G I T A L A A T A V I D S L L K I M	
UniRef90_Q46EM0	S G Q T A M L G A K L M R E F I A S H A K S C R K A	
UniRef90_B2ATN4	A G E T T G V A A A E V V V H S L L Y L M	
UniRef90_M7WJW5	N A E V T G M L A A D L V Q E F L L G M L M K G K	
UniRef90_X6L320	T G A T A I A A A H V A T E L L S I W A S T R R	
UniRef90_UPI0003728309	W A E Q T A L M S S R I V L D S L G V L V R E G H	
UniRef90_W2RWI4	G E I T S L A A A Q I M F E L I	
UniRef90_S3DGL1	T G E T T C L A A A E V V A R S L I S L M V A T	
UniRef90_C8Z7L8	A A E I T S V V A A Q V A D S I I S L I V L H	
UniRef90_UPI0004633912	S G V S T A V A C K I I R E M L L A	
UniRef90_A3LWL7	A E I T S T N G A Q I A F E L I T S M V K K G P I D	

	1	10	20	30	40
UniRef90_UPI0004143050	A S N F S I I G V P L S K T S S H S G A S F A P A S I R K M L S S Y S T Y H E				
UniRef90_R6BDF0	K I K I I D V P L Y Y G C D N P G T H L G P M A F S K S S L A E R C G N Q V				
UniRef90_V9D139	D I A I V G F P Y D T T S Y R P G A R F G P R G I R A A S S R E R S Y N T V				
UniRef90_UPI0003477E5D	D V A V L G V P F D I A L G R P G A R F A P R A L R E A S L R S V P P F T G				
UniRef90_A6UQN0	K K V K L I E V R S E L G A G T R G A S M G I E A L R V A C W D K G S D Y F K				
UniRef90_D4ZLE5	N S K Y V I F G I P F D T T S Y K P G A R F G P D E V R G A S W G L E T F S P I				
UniRef90_B8NF17	A D V V I L G L P F D A T T G R S G G R M G P G A I R Q A S H L A W E				
UniRef90_Q7V914	Y D I A I L G A P F D T G V T R P G A R F G P V G I R L G S R R L Q G W N I Y				
UniRef90_TOYEH6	A H Y V I L G V P F D R T T S R P G A R F G P D A I R Q Q S W N F E P Y N F E				
UniRef90_F9X1A0	A Y D I A I F L G A P F D T G V T R P G A R F G P N G I R Q G S R R I E A W N V Y				
UniRef90_M0A141	D A A V L G V P Y D G A S N R P G T R Y G P T A I R R A S G W W A Y L S D Y				
UniRef90_UPI0004799920	D I V L F G A P Y D G T S S R P G S R F A A S R I R I D S Y G L E T Y S				
UniRef90_A3LPU2	D L A I V G A P F D T G S F R P G A R F G P E A I R R S A R R I G G A H V R				
UniRef90_G31957	D A A F I G V P L D T G T S R P G A R F G P R R I R E E S V M L G A V N P S				
UniRef90_R4G6U1	A S N I G L I G A P L S K S S S H S G A A F P Q A I R Q A L S F Y S T Y S I				
UniRef90_M7FJL5	S Y R S G A R F G P E A I R S A S I L L R D Y N S A				
UniRef90_R6PB31	N A D I V M I G L P F D G T S Y R P G S R F A P E R L R I A S W G L E				
UniRef90_UPI000369A463	A K L V I V G A P M D T V S F R P G T R E G P R H I R L M S V G L E E Y S P E				
UniRef90_UPI0004040A30	A K V V L I L P V P Y D G T S T W K G A D K G P E A F L E A S E N M E L Y D I E				
UniRef90_E4S7R7	A S T I V L I A G I P M D L T S F K P G S R F A P A K I R E V S S E L E E Y S I				
UniRef90_UPI00035F7726	A I L G V P F D G T T T R T G S S M G P R K I R D V S S M T I P Y H F D				
UniRef90_UPI00044118AC	Y D V A V L G A P F D T A T S R P G A R F G P N G I R Q G A R R L G I D R I N				
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UniRef90_UPI00035E3875	H S I R I I I G A P F D G T S F R P G A R F G P A A I R D A S D G L E T W S				
UniRef90_UPI000344F0FA	K L K L V E V S S E L A A G T R G A S S L G V G A I K T A S L N K G S D F F R				
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UniRef90_UPI00036721BD	D V T V W G I P F D A S S N R P G T R F G P Q A L R R A S A I F D N D				
UniRef90_I3ZX35	T A K A V L I I P V P Y D G T S T W K G A D K G P D A F L D A A D N M E I Y D I E				
UniRef90_A3Z3L6	R V G L F G V P Y D G T T S R P G T R F G P A A I R E V S S G L E T Y				
UniRef90_D5RIV2	V M F G A A M D L G A S R R G S A A G P L A R H A G L L R A L G A G A				
UniRef90_D8PPG0	D I A I L G F P F D T T S Y R P G A R F G P Y G I R S G S R R Q R P D E L G				
UniRef90_U7VEY3	M F A V P V M N L G A N K A G I E F G P E V L E E Y F P D T				
UniRef90_T0KGV6	Y D I A I F G A P H D T T T G R P G A R F G P P A I I R M G S Q R K G P W D I F				
UniRef90_R5HJ28	S S D I I M L G L P F D G T S Y R P G S R F A P E Q I R L A S W G L E E Y S				
UniRef90_A5GWS9	V G L F G V P Y D G T T S R P G T R F G P A A I R Q V S D G L E T Y D P Q				
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UniRef90_G3J7Q8	Y D I A I V V G P F D T T A S Y R P G A R F G P R F I R A A S A R Q R S Y N P R E				
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UniRef90_F0S1F3	L F G I P Y D S T T F R P G A R F A P D G I R F F S E N L E T Y S P S				
UniRef90_A0A023BNP3	T A K I V L I I P V P Y D R T S T W K G A D K G P E A F L E A S E N M E I Y D I E				
UniRef90_H8GX42	G V L G I P F D I A L G R P G A R F A P R A L R E A S L R S V P P F T G				
UniRef90_G8QGK1	R T L R L I I G A A S G V G A Q D P G C H A G P T A L H R A H A L Q R R P D L S				
UniRef90_B3T0S7	D I A F V G V P Y D G G T N R P G A R H G P R E M R S Q S S L M R E F H H V				
UniRef90_Q2RHH4	A R A V L A G I P F D A T T S R P G T R W G P R A I R S V S E V L E E Y S				
UniRef90_Q0G0L1	D V A V W G I P Y D G A S N R P G A R F G P Q A I R R A S A I F D N D P Q Y				
UniRef90_A2BZ73	S I G I F G V N Y D G T S Y K S G A K F G P N A I R Q V S T C L E T F				
UniRef90_J3NGH2	Y D I A I M G A P H D T T T G R P G A R F G P T G I R I G S Q R M S L L D T W				
UniRef90_UPI000413DF62	A Q V V L I I P V P Y D G T S S W K G A D K G P D A F L E A S E N M E I Y D I E				
UniRef90_A4YIu8	N S P F A I L G I P M D I T S S R P G S R F A P Q K I R H V S Q F I E F L S I R				
UniRef90_H5SPK4	S I V L Q G A P W D G S S W R R G A A E G P R A I R E A S E S S I E E F S I				
UniRef90_H5SQH2	A A R A V V L L P V P Y D T T S Y R A G T R H G P H A I T E A S T H L E I Y D E E				
UniRef90_D7BIH7	T A D V G F L G L P Y D F A V Y R P G A R F A P N A L R E A S G R Y A P G S E G				
UniRef90_R6NIX4	I V L L F G A P F D T T S F R P G T R F A S K A M R S E S S F G L E T Y S				
UniRef90_X5J190	A R A A I L G I P F D C G T F R I G A R Q G P Q S I R E Q S R L M R T F N P E				
UniRef90_Q67TJ0	T A R A V L W G I G Q D T T S Y R P G T R F G P G R I R E A S Y G I E E F S Y H				
UniRef90_G2DPJ1	A D V V V S G V P L D L A T T R P G A R F L G P A A I R A A S V Q L A E				
UniRef90_D6TKE7	T A Q V T I I P A P L E Y S V Y M K G T E H G P Q A I L D A S S Q M E I Y D E E				
UniRef90_D4LDR7	S S D L V L F G A P F D T T S F R P G T R F A S A A M R N E S F G I E T Y S				
UniRef90_Q6L2W0	N P D I V I T G V P Y D G G S S H R R G A R Y G P E R I R E I L M N S Y S S Y C T D				
UniRef90_D5BN85	D V V V S G I P Y D A V T Y R S G S C R L G P R A I R A G G V Q L S E				
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UniRef90_R6TQL0	V I V I G A G S D L G V H I D G A H L G P L Q L M N D M K P I Y				
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UniRef90_D5E869	K T F D V I G Y P I N L G C D K D G N E L T P S I L R R D G G C Y T S A K H H D				
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UniRef90_M1WUW3	A D Y V I F G A P F D T S Y R R G S R L A P N S I R A A Y D N L E S Y E V N				
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UniRef90_C6XYP1	N E N V V I L E S W C L G L Q R E G V E L G A Y H L L Q T Q L L N H L P V I K				
UniRef90_S0AQY6	A V L G V P F D C G T F R V G A R Q G P L E V R R E S R L I R R Y H P S				
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UniRef90_A4CQ9Q	T A K I V I I P V P L E Y S V Y M K G T E H G P Q A F L E A S E N M E I Y D I E				
UniRef90_D2W052	N E N V V I L E S W C L G L Q R E G V E L G A Y H L L Q T Q L L N H L P V I K				
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UniRef90_I4CAD5	A I L G C P L D T S T Y R S G S D A P N A I R R A S D S I E T Y S				

50 60 70 80

D Q I D L K D F N V T D F	G D I T M H V T D F E E S R N R I K S T I		
S G I S L I G I P P K P E N K N T E P	T M K Y L E E V T A T C R Q L I A D S V		
W G I D P F T D G G L C G D I P I T P	F D A Q H A F R Q M E Q G Y R Q I L Y H S		
L D G R T R L A G V T F A D A S D V I L P S L E P E L A H E R T T E A A			
R F N S V S V P D L N Y T L F D P D V F P N A H R I D S I L T V Q K N I A R A V			
L K K D L I D L K I C D K Y N I S I E	G N Q E T I I N R A Y L A A		
E T R W P W D F K L K D H L N I V D A G D	L V Y D C G D S A D F T R R R V E D F A		
T G V N V F E S W A K L V D C G D A P L D N T V A L K Q L D L A H K V I S S R P			
C P Q L N L D L E D I N F T D F G N L E I N F G A P E P V I K K V K T A S			
T G L D L S E E V P V H D	L G N A E E F G S A E E M V R G V R E L A		
T G M N P F K Q G L V I R D C G D A P L D N T I A L K Q L D K A H K V V S G R K			
T N M Q T G K Q V N F D D L T V A D C G D V P V F P M D G E T T A E S T A H V			
P Y L D R D L E D R K V H D A G D L S F A F G N R D L V L D N I R S F S			
T Y P I D P Y D E T T H N Y S I L V D C G D V A M S P F D N R I L A L N Q I Y R G Q			
T G A L P F Q S L R V A D	L G D V N V N L Y N L Q D S C R L I R E V Y		
A G M D L T D I T V T D Y	G D I V M H P T D I V E S Q K R I A E T V		
T Q V N V V E S L S M V D Y	G D A P V V P G Y H E E T L K R V Q A Y L		
D Y S P V Y D K H L D D V N F Y D A G E L E F P L G N T E K T L L D V I E K N A			
L D R Q L G E V A F A D A G D V I M Q P G R V V G S L S R I A E V L			
U n i R e f 9 0 _ U P I 0 0 0 4 7 9 9 2 0	T D S E V Y Q Q G V Y L A N P V D	E K S S P E A M V N A V H D K T	
U n i R e f 9 0 _ A 3 L P U 2	Y Q D K S L Y D K T F C D M G D L E L P F G N V I E R S I E A I Y L F A		
U n i R e f 9 0 _ G 3 1 9 5 7	Y D V N I M E T Y N I R D C	G D V D V K I G D A F G T I E R G G E N V	
U n i R e f 9 0 _ U P I 0 0 0 4 4 1 1 8 A C	V P I T D H L D V V D C G D V P M V L T D N K V A L L R Q L E L A N A A L G K S I		
U n i R e f 9 0 _ U P I 0 0 0 4 1 6 2 1 F 1	Q F D P P H V A D A N N Y L W K G N K F P H A K Y V D G V Y Q V L K N V Y S S I		
U n i R e f 9 0 _ D 2 U 1 Q 5	G K R W P W Q F D L R E Q L K V D C G D L V F A F G D A Q D M S D K L Q A H I		
U n i R e f 9 0 _ R 5 P 7 G 6	T D S E V Y T Q G I A T L D P V T E S S S P E A M S D A V E M Q V		
U n i R e f 9 0 _ U P I 0 0 0 3 B 6 8 5 7 3	W P T N P L E D M A I V D Y G D V A F D Y A H T P S F P G L L T D H I L		
U n i R e f 9 0 _ E 8 T 4 C 8	L N K T L E E L Q F C D L G N V I E L P A P P E Q M V E H L		
U n i R e f 9 0 _ U P I 0 0 0 3 8 1 8 F 0 F	V D L G D L D V K E V I E S D K F K N E K D I K Y F E S I Y D L N L K L S K A V		
U n i R e f 9 0 _ U P I 0 0 0 4 0 D 7 1 6 0	L K L F P W G F D P F D D L A V V D Y G D C W F D A H R P W T V R E S I V Q H A		
U n i R e f 9 0 _ U P I 0 0 0 3 5 E 3 8 7 5	P L L D A D V G D V A Y A D Y G D L S L P M G D T H G V L H A I I R Q A V		
U n i R e f 9 0 _ U P I 0 0 0 3 4 F 0 A	K Y K T T A V P T I N E S L F L D I E N P Y A K H I H E V R I M L E R T C E T I		
U n i R e f 9 0 _ E 8 P P D 2	L G V T P E E V G I H A A E P V P W V A G S A E E S H A L I R E A A		
U n i R e f 9 0 _ U P I 0 0 0 3 6 7 2 1 B D	P Q Y P F H A D F F E A L S V V D Y G D C L L D Y R L P E R A H L A M R E Q A		
U n i R e f 9 0 _ I 3 Z X 3 5	T K S E P Y K N G I F L D E P V T E D A S P E A M T D A V H A R V		
U n i R e f 9 0 _ A 3 Z 3 L 6	C P Q L D L D L E A M A F A D L G A V D I P F G D P E P V V E A V K Q A T		
U n i R e f 9 0 _ D 5 R I V 2	R D A G D L P C P A P L E G F D A I R P A H H L G E I A A W A R A V V Q A Q A		
U n i R e f 9 0 _ D 8 P P G 0	A S L I D C G D V P L S A Y D N L K A L D Q M R P V A S A A K A T R I T S R S A		
U n i R e f 9 0 _ U 7 V E Y 3	F G E M T Y I D I E K Q R E N F N E W S L K Y K N T I L N T C E K L A T A V		
U n i R e f 9 0 _ T 0 K G V 6	T G R D P L Q S W A R V V D C G D T W L D N T V S L K R L D K A H K G I S G R P		
U n i R e f 9 0 _ R 5 H J 2 8	P R F D K H L E D V N F H D A G D L E F P L G N T Y K S L D I I E Q N V		
U n i R e f 9 0 _ A 5 G W S 9	L D A D L E D I A F A D L G A V E I S F G A P E P V V E A V R Q A T		
U n i R e f 9 0 _ A 6 E S 2 9	T E T E V Y K Q G I C L L D P I T E N S S P E A M V A A V Y A K T		
U n i R e f 9 0 _ G 3 J 7 Q 8	A H V N P Y Q N W A R I V D C G D I P V T P Y D N V I A R E Q M T Q G L R H R T		
U n i R e f 9 0 _ V 4 X Z 6 1	H F N I E T G V D P F D R Y K V V D T G D A A V S P G Q T R K S Q L S I E D A V		
U n i R e f 9 0 _ F 0 S 1 F 3	L D K D L E A V I R F R D L G N V D V P A N P E K L I K T V		
U n i R e f 9 0 _ A 0 A 0 2 3 B N P 3	T D S E V Y K N G I Y L A E P V T V D A T P E A M V D A V H Q E T		
U n i R e f 9 0 _ H 8 G X 4 2	L D G R T R L E G V T F A D A G D V A L P S L E P E L A R G R I T Q A A		
U n i R e f 9 0 _ G 8 Q G K 1	W G E T L F P R Q A L G G R V A E V A D L C Q R L A E A V		
U n i R e f 9 0 _ B 3 T 0 S 7	T R I N P Y E L A R V A D V G D V R F S K P D H E A V S Q D I E N F F		
U n i R e f 9 0 _ Q 2 R H H 4	P Y L Q R E L T G V P F Y D A G D L D L P P G R V E A S L E R M E A A A		
U n i R e f 9 0 _ Q 0 G O L 1	P I H R D L F E H L S V V D Y G D C A L D H R R P E I A H T A I R A E A		
U n i R e f 9 0 _ A 2 B Z 7 3	C P R L E K D L D E F D N Y V D F G S L I I H K K D S K S V I K S V K S A T		
U n i R e f 9 0 _ J 3 N G H 2	S V Y T G K G M A D S W A T L V D C W L D N N V A L K Q L D K A H R V V S G R V		
U n i R e f 9 0 _ U P I 0 0 0 4 1 3 D F 6 2	T R S E V Y Y R K G I Y L A P P V T E N S S P E K M V E A V H K T T		
U n i R e f 9 0 _ A 4 Y I U 8	S G V D M S E I G F Q D Y G D V I L H P S D V E E N V E R I S Q V V		
U n i R e f 9 0 _ H 5 S P K 4	R R R R N L R E V P F A D A G D L S L P E G A A G V V T A I A E A T		
U n i R e f 9 0 _ H 5 S Q H 2	L R D E P Y R V G I H T L P P L E P S A A C P E E T I Q R V E E A I		
U n i R e f 9 0 _ D 7 B I H 7	Y F D L E T E T Y R L G G L S L V D A G D V D P A Q L E Y T E T F R R I T E A A		
U n i R e f 9 0 _ R 6 N I X 4	P Y L D K D L T D C R I F D S G D L E L C F G D A N L A L N H I E S R A		
U n i R e f 9 0 _ X 5 J 1 9 0	L D Y N P L Q R L G V I D C G N V R V V P S D I L D A F E R I E Q A V		
U n i R e f 9 0 _ Q 6 7 T J 0	S R M S L T D K N F F D L G D V A V F G D V Q E S L R R A E E V A		
U n i R e f 9 0 _ G 2 D P J 1	L N L F P W G F D P F D D L A V I D Y G D C W F D A H Q P W T R E T I V Q H A		
U n i R e f 9 0 _ D 6 T K E 7	L D C C C P L E L G V Y T R P V L D Y S G M D H A E A L K A T G Q A V		
U n i R e f 9 0 _ D 4 L D R 7	P Y Q D R D L S E I A V F D G D G D E L E L P F G A P D A A L E Q I E R F T		
U n i R e f 9 0 _ Q 6 L 2 W 0	H N V D L N S L K I L D A G N I D V N F I D Y N I E K I K D D Y Y N I I K		
U n i R e f 9 0 _ D 5 B N 8 5	L K H F P Y G F D P F E T L S V I D Y G D C Y L D P H M P L T I F D A I E A H A		
U n i R e f 9 0 _ G 0 E D 2 9	G K I L D V D E H H V R F Y D A G D A L V E Q P L E K A L E A I G D A V		
U n i R e f 9 0 _ R 6 T Q L 0	H G E M I N L M Q D E G I V K S R N L S D R K K N D V E I E R F N T A L Y K L E		
U n i R e f 9 0 _ T 4 V N 1 0	P I L D L D M D D Y K I C D I G D E L S I G N T D T V L N E I Y E G T		
U n i R e f 9 0 _ U P I 0 0 0 2 8 8 8 F 4 E	E R K H D Y K D T T I L D F G D V H T H P T K L E E T T E R L Y I S V		
U n i R e f 9 0 _ I 7 L R E 2	K N F S L F K D G K I V D C P P M T P I D N R I A L D Q L Y R A E R A I L K T T		
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U n i R e f 9 0 _ D 5 E 8 6 9	D L A S I P I H D A G N I N V D G D F E A V A S R V E E F M S G I L S G		
U n i R e f 9 0 _ Q 0 A Z 5 8	V Y L N K S E E I D F Y D A G D V V I P F G N V P Q S L K N I E A T A		
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U n i R e f 9 0 _ M 1 W U W 3	T S V P A N F G I H T A D P V D C S G K I A K T L D R I E D A V		
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U n i R e f 9 0 _ C 6 X Y P 1	K H K S V E I P N E N H L L E S T G S P F A K R I S G I L T M V E R V S D E V		
U n i R e f 9 0 _ S 0 A Q Y 6	Y G I N L L D A K I C D I G D L P V Y V E D V D Y I L S E I V E T A T		
U n i R e f 9 0 _ A 0 A 0 2 4 I I 1 5	G I H P V F D V S P L E H L G D A L D M R L P N A S P L P E V R A H I E R Q A		
U n i R e f 9 0 _ A 4 C Q C 9	T D S E V Y R Q G I F L A E A V T E K S S P E A M V S A V H A V T		
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U n i R e f 9 0 _ Q 4 7 D 7 8	L V I D W G K T L F A P D D N D G T S T T A R I A E L C R H I A D E V		
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U n i R e f 9 0 _ K 9 Z 5 7 3	L G M E T C F H A P I F T H D Y I A D T R I N K N T A D D M L K V T T E T V		
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130 140 150 160

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UniRef90_UPI00035F7726	S H L D T A E D V G G D P W N H C C P V P R T M E L		
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UniRef90_A5GWS9	A H A D L R E S W L G G R H S H A C A M R R C L E		
UniRef90_A6ES29	A H A D L R K S Y E G T S C N H A C A		
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UniRef90_D8PPG0	D Y G L D N V V S A I R A R V G D T P V Y L T D D V I D P A F A P A T
UniRef90_U7VEY3	H K G L D N V L D E I R D Y L K I D N I H I S F D V D S V D P E F A P G V
UniRef90_T0KGV6	K L G A H G V I S K I K E R V G D S K V Y I S V D I D V L D P A Y A P A T
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UniRef90_S1RI75	K K G M A A L L K E I E G E I S D R V Y L S V D V D A F D D P A Y A P G V
UniRef90_F2KMM4	E Y S A K K L A T K V M K E I G T S Q F Y L S L D V D P A F A P G T
UniRef90_D5E869	Q L Y L D Q F L T A L K D V K E K K G Q R S V Y L S D V D P A F A P G T
UniRef90_Q0AZ58	A S D P A E V I V D I L S D I K R K G I D H I H L S F D V D V I D P E Y A P G T
UniRef90_C2MBD4	L K G I P T H I L P S D F P D R I Y I S F D V D G L D P S V I R S T
UniRef90_M1WUW3	R C Q K V D P F K K A R L P S G K P V Y L S F D M D V L D P A F A P G V
UniRef90_C6A3C8	K R G V E R T V I E T L K Y L D H C D L Y V S F D V D S L D P T A S R G T
UniRef90_C6XYP1	A S G L D E V I S E V M E K T S D R V Y F S I D M D G F D P A Y A P G V
UniRef90_S0AQY6	G L D G S A L R P V V T A I R E R L A G R P V Y L T L D I D V L D P A F A P G T
UniRef90_A0A024II15	A D W M E D V V D Q L T D N V F I T F D D L D P S I M P S T
UniRef90_A4CQ9Q	U n k n o w n E Y C L E E C F S H L N L N Q S E P F L S F D V D G I D P E F T P S T
UniRef90_D2W052	U n k n o w n R R G F A Q T V A E F S Q V V G A P V Y L C W D M D V F D P S V A P G V
UniRef90_UPI0002DFD5A3	U n k n o w n E K G L V P T I K D V L D T V K R R T D S I F I S V D M D V L D Q S H A P G C
UniRef90_E3E0Z6	U n k n o w n L R G F A A C L D E A I V A G A P A G F G V T L D D A L D P R S A P G V
UniRef90_Q47D78	U n k n o w n Q I G P Q A V I D R I P Q G A R V Y V T V D D G F C P S I A P G T
UniRef90_UPI0004648B5C	U n k n o w n F N P H W M A E A I S N K T K K V F L T I D D G I D P S L M P G V
UniRef90_K9Z573	U n k n o w n K E L A K R V A G R P V Y F T L D D V L D P S C L H A T
UniRef90_I4CAD5	U n k n o w n K E L A K R V A G R P V Y F T L D D V L D P S C L H A T

250 260 270 280

UniRef90_UPI0004143050	P A I G P G G M D S Q T L L D G I C Y L A S H P K V S G M D I I V E L L D P T I D F		
UniRef90_R6BDF0	G L P I P D G P S I E Q T H Q A L R V L F S D P R V V C S A D F V E Y S P K H D R		
UniRef90_V9D139	G T P E S G G W T R E V K R F I K G L E G I R L V G A D V V E V S P P Y D T		
UniRef90_UPI0003477E5D	S S P E P D G L T Y A Q G M K I L A A A A A K N N I V G M D V V E L A P G L D P		
UniRef90_A6UQN0	G T P V E T G L T V T Q A K E L N Y L L Q D P R V V C Y E M T E I N P T L D T		
UniRef90_D4ZLE5	G T P E P C G F S P K E L I E S L Y L L K E L D R I V G F D V V E V S P P H Y D L		
UniRef90_B8NF17	G T A E P G G F T T R E L L S I L D A L H G L P V I G A D V V E V A P I Y D T		
UniRef90_Q7V914	G T P E P G G F T W Q D F S A I I N V L Q N H K I I G A D I V E L A P Q L D P		
UniRef90_TOYEH6	G T P E P F G M T P L D V K T V I D L A A P R L A G L D I M E V S P P W D Q		
UniRef90_F9X1A0	G T A E P G G W T T R E L L T I L D G L I N G L E V V G A D V V E V A P P V Y D N		
UniRef90_M0A141	G T P V P G G G L T A H Q A L K T M E V L G A T D A V S A V D M M E V A P R Y D T		
UniRef90_UPI0004799920	G T P E P G G G I G F A D M M K I L N K L T A L N I V G A D V V E L A P P D Y D P		
UniRef90_A3LPU2	G T M E I G G L T G R E L L S I L D G L K G I E L V G A D V V E V S P P Y D T		
UniRef90_G31957	G A P E V I G L T P S Q A L E I I R G C Q G L N V V G C D L V E E V S P P Y D L		
UniRef90_R4G6U1	P A I G P G G M D S R T L L H A I S L L A R Y D A V Q A M D I V E I D P T I D		
UniRef90_M7FJL5	G T P E A G G G P S S Y E A F R F L R A I G P L N Y C S L D L V E E V S P P Y D P		
UniRef90_R6PB31	G T P E P D G L M Y R E L A E W I K Y L K D F D I V G A D I V E E L A P P D Y D K		
UniRef90_UPI000369A463	G T P E P G G V T P R A L F D A L Y Q M T G L D V V G L D I V E E V C P V Y D P		
UniRef90_UPI0004040A30	G T P E P G G L F Y Y E T L E F L K Q V F T E K N V V G F D I V E E L C P N E		
UniRef90_E4S7R7	G T P E P G G G I L S S D F F D I L L K L K D L D I I G A D I V E E V A P P Y D I		
UniRef90_UPI00035F7726	C A P T P P G G I L M V R E M I Q A I E L L G Q V D I L V G F D I V E E I A P P Y D Q		
UniRef90_UPI00044118AC	G T P E I G G F T T R E I K K I L Q G L S G L K V V G A D I V E E V A P P G Y D T		
UniRef90_UPI00041621F1	G T P V P D G L T V E E A I Q L N A E L I K D K R V C C W E I V E V N P T L D T		
UniRef90_D2U1Q5	G T P V V G G G L T S D R A L K L R G L Q P L N V V G M D I V E E V A P A Y D Q		
UniRef90_R5P7G6	G T P E P D G L T Y R E V M M F L K L I N E R H N I I G L D V V E L C P N E		
UniRef90_UPI0003B68573	G T P V V W G G L Q T W Q A A A C C R D L A G I N M V G G D I V E E V S P A Y D T		
UniRef90_E8T4C8	G T P E P G G A S P L E F F T T L Y K L P A V K V G F D I V E E V A P P Y D P		
UniRef90_UPI0003818F0F	G T R V D G G Y T V E D T K Y L L K R L I Q T G I V K S M D F V E F N P R L D V		
UniRef90_UPI00040D7160	G T P V P G G G L S S H Q A L S I L R Q L G D I N L V V G M D I V E E V A P A Y D H		
UniRef90_UPI00035E3875	G T P E P G G G I D D W W T F Q R F I S S L R Q H H I V G M D I V E E L A P Q W D A		
UniRef90_UPI00034FF0A	G T P V P N G L Y E D E A K E L N R L L V Q H P K V C A W E I V E V N P T L D E		
UniRef90_E8PPD2	G T P L P G G G L S Y R Q V V P V D L L S A V F Q E K E V G M D I V E E L S P T		
UniRef90_UPI00036721BD	G T P V A G G G P S S A K M L A V L H H L K N L Q V V G F D I V E E V S P P Y D H		
UniRef90_I3ZX35	G T P E P G G G L P W Y P T L K L L K K V I Q Q K N V V V G F D I V E E L A P P		
UniRef90_A3Z3L6	G T P E P G G G F L W S D F A E L V A E L S H H N I V V A A D V V E L A P Q L D P		
UniRef90_D5RIV2	G T P V P G G G L S A E E A A E A L L R D S G R L L A A L D I V E E L N P F L D R		
UniRef90_D8PPG0	G T P E A G G G W S V R E M K R I L R G L T G L N F V G A D L V E V A P A Y D N		
UniRef90_U7VEY3	S T P V R N G F T P E E M F K T F R F L F K N Y S I T S V D I V E E Y N P V N D K		
UniRef90_T0KGV6	G T A E P G G G W S T R E L L T I L E G L E G L S V V G A D I V E E V A P V Y D N		
UniRef90_R5HJ28	G T P E S G G G L Q F N E L T G W F E Y L D K F N I I G A D I V E E L A P D Y D A		
UniRef90_A5GWS9	G T P E P G G G Y L W A D F T E L T A L L Q R Q N I V V A A D V V E L A P G L D S		
UniRef90_A6ES29	G T P E P G G G L F W Y E T L E F L K Q V F E E K N V V V G F D I V E E L M P R		
UniRef90_G3J7Q8	G T P E P G G G W T T R E L I R I L R G I E D L N V V G A D I V E E V S P A Y Q G		
UniRef90_V4XZ61	G E P E P G G G L V P R E A L Y M V R E V V K D P D D F G F D I V E E V A P Q Y D V		
UniRef90_F0S1F3	G T P E P C G F S P I E F F E T I Y K L P P V K V V G F D I V E E V S P P Y D P		
UniRef90_A0A023BNP3	G T P E P G G G L F W Y E T L D F L K L V F N E K N V V V G F D I V E E L C P		
UniRef90_H8GX42	S S P E P D G L T Y A Q A M A L L A A T A K R N R V V G L D I V E E L A P N L D P		
UniRef90_G8QGK1	G S P E P A G G L S Q T E L M P A L A G L A G D P A L L A L E V M E F N P D R D A		
UniRef90_B3T0S7	G T P E I G G L T T L E A Q L L L Q Q G L G G L N V V G G D I V E E V S P P F D N		
UniRef90_Q2RHH4	G T P E P G G G C P P G E I F K A I Q I L Q Q G A N V V V A F D L V E E V C P A Y D Q		
UniRef90_Q0G0L1	G T P V A G G P S S A K I L A V L H H L K N L D F V V G A D I V E E V A P A Y D H		
UniRef90_A2BZ73	G T P E P G G G F W N D F E A I L D T L K N I R I V A S D I V E E L S P D I D N		
UniRef90_J3NGH2	G T A E P G G G W S T R E L L T L D G L T G L P V V G A D I V E E V A P V Y D N		
UniRef90_UPI000413DF62	G T P E P G G G L L W Y E T L E F L K M I F K K K N V V V G F D I V E E L C P N D V		
UniRef90_A4YI8	A T P E P E P G L D P S T V L D I M N L V V D R R V V G F D I V E E V S P P S Y D P		
UniRef90_H5SPK4	G N P E P G G G A S Y R E L V V A V V L E T A F R G F E V V A V D C E V A P P L D P		
UniRef90_H5SQH2	G T P E P G G G L L D W Y T V L K I L R H V G E K H T V V G C D V V E L C P		
UniRef90_D7BIH7	S S P E V E G L T Y A E A L A V V V R R T I T R N E L V G F D L V E E L A P N W D S		
UniRef90_R6NIX4	G T P E A G G G V S F L D L L G A A H K V S G G L N I I V G C D V N E L C P A Y D Q		
UniRef90_X5J190	C A P S W G G L S A R E A I A F L R G L A G L N I V A I D I N E L S P P H D V		
UniRef90_Q67TJ0	G T P E P G G G I T S R E M I D A V L A M R G L N V V V G G D I V E E L V A P G L D Q		
UniRef90_G2DPJ1	G T P V P G G G L N S H T A L S I I R S L G D L N I I V G M D V V E E V A P A Y D N		
UniRef90_D6TKE7	G T P E P G G G L S W Y Q V L D L V R E I C Q R S T V V V G M D V V E E L C P M E G Q		
UniRef90_D4LDR7	G T P E A G G V H F A E L L D A V R Q V M G L K P V A M D I N E L S P P H Y D Q		
UniRef90_Q6L2W0	G T P E A G G V L T P R E I F K A M Y L L G L N K K V R F M D L T E Y S P L D H		
UniRef90_D5BN85	S A A S P G G G L T P R E I F K A M Y L L G L N K K V R F M D L T E Y S P L D H		
UniRef90_G0ED29	G T P V S G G G L A S W Q G M E F I R G L E P L N V V G M D I V E E V A P A Y D H		
UniRef90_R6TQL0	S N P E P E P G I I T P R I L L D I V F E V A R L L A V L R G M D V V E E V S P P Y D A		
UniRef90_T4VN10	S I P E V D G I I N D K E A M E I L E E V L K H N S I S S M D I V E E F N P L R D E		
UniRef90_UPI0002888F4E	G T P E P E P G G L T S R E L L L S S L S V A A S H S K V K A M D I V E I D P S K D V		
UniRef90_I7LRE2	G T P V N G G G L T Y R E G I W T E E I H N T G L L S V M D L V E E V N P A L G A		
UniRef90_Q6BVQ4	G T V E P P G G F S S R E L L T I L D K L E G L E V I G A D V V E E V A P P Y D T		
UniRef90_D7CUQ7	S S P E P D G L P Y A L I A A Q L I A A E T A R R N P L V G L D I V F V E L A P N L D P		
UniRef90_S1RI75	G T P E A G G G I F F M E F V E S L S K L I S Q L N I V A L D V N E L S P A L D Q		
UniRef90_F2KMM4	S T P E P F G I I T P F D Y L A F L E K F A D R I V V G M D V V E E V V P D S		
UniRef90_D5E869	G T P E P F G L D P W Q V R D L I H A F A P H T V G F D I M E I A P P D Y D R		
UniRef90_Q0AZ58	G T P E A G G G F S S R D L L Q M L H E L R E L D V V G F D I V E E I S P P C E H		
UniRef90_C2MBD4	G V P E K K G I P P A L A Y T L I R L C M Q S D L V K S V D I V E E L N A N L D Q		
UniRef90_M1WUW3	G T P V P G G G L N W H N T L T L L E R I E N R T L I G A D V V E E L A P Q		
UniRef90_C6A3C8	G N P E S G G G L T T R E L V E V I K S I I K T E V A F D V V E E L N P S Y D Y		
UniRef90_C6XYP1	G T P V A Q G G L T E R E A G N L M S R L I T N Q K V C C F E I V E V N P T L D R		
UniRef90_S0AQY6	G T P E P Y G L T S Y D V R S L T S I S D R I L G F D I N E M T P L Y D		
UniRef90_A0A024II15	G T P E P G G G L T S S Q V L T F L E E L A T L N W I G M D C V E V A P A Y D H		
UniRef90_A4CQ9Q	G T P E P G G G L F Y Y E T L T F L K S V F E Q R N I V V G F D M V E E L C P		
UniRef90_D2W052	G T A V E N G I S H Q D G L K I C R K C Q K Y S K F V G M D L V E V N P S I G		
UniRef90_UPI0002DFD5A3	C T P A W G G G L S A R E G I E L L R S L S G L N I V A M D F N T V S P P Q D V		
UniRef90_E3E0Z6	P A I G P G G G L Y T D E L L Q A V R Y I A Q D P R V A G I E I V E V D P T L D F		
UniRef90_Q47D78	G S P E P D G L T S Y D V L T A M H W I A A Q A G L K A L E I V E Y N P D R D R		
UniRef90_UPI0004648B5C	G T P S H G G F L Y Y E V L E M M Q A L A R R H E V V G I D L V E V A P D Y D P		
UniRef90_K9Z573	G T P E P G G M D W Q Y Q L L A F M N L I F S S F D V I G C D V M E L A P T K D S		
UniRef90_I4CAD5	G N P E P G G G W F Y S D M E R L I F Q A L R K M R L I A A D V V E L N P Q L D P		

290 300 310

UniRef90_UPI0004143050	R D M T S R I A A H V I L N F L	
UniRef90_R6BDF0	N D Q G L H T C L S L M E N I F T S L A Q S H R	
UniRef90_V9D139	V A E V T S V A A S D L L V D I M A L M V K D S L G K A D G K D	
UniRef90UPI0003477E5D	T G R S E L L M A R L M M E T L C E V F	
UniRef90UPI00046F8E9E	E N T M A E N A F D I L E A A T E A I L Q K E S K	
UniRef90_A6UQN0	G K I T S V T A A K I I R E L M L	
UniRef90_D4ZL5	A E I T A L A G A T L G L E M L H L	
UniRef90_B8NF17	T A E T T T L A A A E V A H S L L Y L M	
UniRef90_Q7V914	S G V S S I V G A K I T R S L I M M L L	
UniRef90_TOYEH6	G N T S S L A A R L A R E A I L R V E G H R Q G R T L P	
UniRef90_F9X1A0	G G E T T	
UniRef90_M0AL41	D E G T Q K L A A Y L L V T L L	
UniRef90UPI0004799920	T G V S T A V A S K I I R E V M L I L	
UniRef90_A3LP02	N S E I T S L A A T S V V D S L L K L M	
UniRef90_G3I957	S G N T A L L A A N L M F E M L C A L	
UniRef90_R4G6U1	F R Q M T S R L A A W F I L Q F L K E K K E G D F	
UniRef90_M7FJL5	T G V T S I V A S V V C F E M L S L V A L S K	
UniRef90_R6PB31	S E V S T A V V T K I V R D V L M I L	
UniRef90UPI000369A463	S G A T G I L A A K L V R E A I L L W A P R R R	
UniRef90UPI0004040A30	N E K S S N F L A A K L Y Y K M L S	
UniRef90_E4S7R7	S D R T A L L A A K L V R E L I L M	
UniRef90UPI00035F7726	S D I T A I T A T R F L V D M L A S	
UniRef90UPI00044118AC	Q D E I T S I A A A N I G W E I L L A L M A K T	
UniRef90UPI00041621F1	E N T M A E N A F E V L	
UniRef90_D2U1Q5	S Q I T A L A A A T I A L D M L Y	
UniRef90_R5P7G6	T N K A P D F L A S K L I Y Q I L S M	
UniRef90UPI0003B68573	T G A T A I L A G A H V A H E L I C L Y H W A H H R	
UniRef90_E8T4C8	S G I T Q A L G A K V V R E V M L K F W G	
UniRef90UPI0003818F0F	N D	
UniRef90UPI00040D7160	A E T T A L A A A H V A A D M L C L L	
UniRef90UPI00035E3875	S G C S S V L A A K V V R E M L L I A	
UniRef90UPI000344F0A	H N A M A E T A F E I I E S	
UniRef90_E8PPD2	G Q F H A E M T A A Q L V Y H A I G L K G L	
UniRef90UPI00036721BD	A D M T A I A G S T V A M Y I L G I L A D K K A A R R	
UniRef90_I3ZX35	S G V S S V L A S K V V R S L L M L L	
UniRef90_A3Z3L6	E E R S A R L T V A L M A E L F G A P H G A R R	
UniRef90_D5RIV2	A D V T S I A A A D L V H D F L A M	
UniRef90_D8PPG0	N E K T M N	
UniRef90_U7VEY3	A G E T T V L A A A E V A Y S L I D D L M V T	
UniRef90_T0KGV6	S G V S T A V A T K V I R E L L M I M	
UniRef90_R5HJ28	S G C S S V L A A K V V R S L L L S L A A	
UniRef90_A5GWS9	S G E E T S L A A A Q V A Y E I L S S M	
UniRef90_A6ES29	S G G I T S G F A N R L V I E V L G S M A L A	
UniRef90_G3J7Q8	S G I T Q M L A A K I V R E L I L K F W G	
UniRef90_V4XZ61	S G L S A L I G A R L V M E T L C E V F	
UniRef90_F0S1F3	G G R T A A L L A R L I	
UniRef90_A0A023BNP3	T G N T S L V G V T M M F E I L C L L A A Q L A D A N R	
UniRef90_H8GX42	S D I T A I L A A K I L R E A I L A W G G K	
UniRef90_G8QGK1	A D V T A I A G S T V A M Y V L G I L	
UniRef90_B3T0S7	S G V S S V V A A K V L R S L I M S L	
UniRef90_Q2RHH4	D G E T T V L A A A E V G L S L L T L M V	
UniRef90_Q0G0L1	D K S S D F L A A K L Y Y K M L	
UniRef90_A2BZ73	S E I T S V L G A K L I L E T A A K L	
UniRef90_J3NGH2	T G R S A V T A A A L V R E	
UniRef90UPI000413DF62	S G L S S L V G A R L L A E V L C	
UniRef90_A4YIU8	S G A S T A V A C K V L R E	
UniRef90_H5SPK4	N G T T A S L A A A L M V E L V L L C	
UniRef90_H5SQH2	T D R T P V L A A K L I L R E A L L A	
UniRef90_D7BIH7	A E I T A I A A A H V A A D M L C L M R N K K V N	
UniRef90_R6NIX4	T R A D F L A A K L V Y K M I G Y R F Q Q N A K	
UniRef90_X5J190	S G A S T A L A C K L L R E I M L	
UniRef90_Q67TJ0	D D I T G R V A A E A L L H F M C G A	
UniRef90_G2DPJ1	A E I T A I A A A T M A F N W L A V L A K K Q G A A T H P V G R L	
UniRef90_D6TKE7	G G V T S V L A A K A I V E F A A G V V A A R S S A R	
UniRef90_D4LDR7	D R K T E Q L A L N M V A R T V	
UniRef90_Q6L2W0	T N V S T V T A C K I L R E L L A L	
UniRef90_D5BN85	R D I T S R L A A H V L M C F M Y	
UniRef90_G0ED29	S R E A V I A S T V S M A V D V I A S S L G Q T R E G	
UniRef90_R6TQL0	N E I T T M V A S E V A R S L L G L M	
UniRef90_T4VN10	T G R S A L L G A R L I M E T L C A A F	
UniRef90UPI0002888F4E	S G A S T A L A C K V V R E L L L A	
UniRef90_I7LRE2	E K V T Q I L A A K L V V E F I	
UniRef90_Q6BVQ4	G Q T S L L G A K L L R E F I A A	
UniRef90_D7CUQ7	G D N T S I L L G A K L L R E A L L A	
UniRef90_S1RI75	G R I T E R A M Q Q V L K I I L	
UniRef90_F2KMM4	S G D H A S D F A A A Q L V Y T L L G L	
UniRef90_D5E869	K G I T A F A A A K I V R E I L	
UniRef90_Q0AZ58	E N Q M A E H A F E I I I	
UniRef90_C2MBD4	N G N T S M L A A K L I Q D F I A S	
UniRef90_M1WUW3	A E L T S N A A A C F V W T Y L	
UniRef90_C6A3C8	N E E Q V N R T I S N A M Q Y I T S A I E R R	
UniRef90_C6XYP1	Q G M A A Q L C A H M I M E L V L L A A G M	
UniRef90_S0AQY6	R D M T S R A A A H V M L H A L K G I K L A R Q L D L R Q I	
UniRef90_A0A024II15	H G T T A A L S N M I E Q I L	
UniRef90_A4CQ99	S G S T Q I L A A Q L L N M L G F I F H A R G H R	
UniRef90_D2W052	V V I S E F T T A A K L I Y K L I G Y W Q Q N N S K	
UniRef90UPI0002DFD5A3	S Q V G T I T A S K I V R E L L L I L G	
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UniRef90UPI0004648B5C		
UniRef90_K9Z573		
UniRef90_I4CAD5		

1 10 20 30 40

UniRef90_F0XA37	D I A I V G A P F D L G T Y R P G A R F G P A G A R M G S R R I A P S S M D
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UniRef90_B8E0V1	K V L I I S C P L E T T T Y K K G T R E G P Q A I L L A S Y N L E L Y D E E
UniRef90_E0UFT8	S A K V V I L P I P Y E T T T F R K G C E N G P D A V L E A S Q Q L E A Y D E E
UniRef90_UP100040A7AC4	N K S I V F L I N K S E I T A G T R G S S L G P D A I M T A A R K K G S F I F G
UniRef90_B51FF7	F I I F G V P F D G T S Y R H G S K F A P D E I R K A S Y N L E S Y V M E
UniRef90_R5VUH0	D V I V A G L P F D T T T A R P G T R L G P T G I R A A Y L G N
UniRef90_F8MKX7	D I A I V G A P F D T T T S Y R P G I N P Y A S W
UniRef90_X1AGZ9	N S R V V V L P P V P Y D S T T Y R S G A R D G P R A I I D A S R Y L E L Y D L E
UniRef90_G8LRA3	K I V V L I P V P Y D T G T W R K G S K K G P K A F L S A S E H M E L L Y D I E
UniRef90_UP10003DF4FBE	K V G I I G V P F E K G Q H K K G V A Q G P K V I R E A G L I K E L E L L G
UniRef90_X1QJ87	N T D I A V G F I P P F D G G S S P F R A G A K D G P R E L R E I T Y H I D P I T E R
UniRef90_D1YZD9	A E F V L Y G V P F D T S S Y R K G S K W A P L E M R K A S Y N F E T Y N G D
UniRef90_S5Z723	S A R I V V M G I P P F D A A T G V P G A R Y A P R R I R E V S V E L E T F H P A
UniRef90_D3HQ18	K K T I F L G F A S D A G V G R P G A K L G P D H I K S Q L A K L P C S
UniRef90_C0NLY2	Y D I A I L G A P F D T T S S F R P G A R I R A A S A R Q L P A N S
UniRef90_G0EF23	F V V L V G L P L E A T S T R P G S R L A P L A R E A S L Y V S L W S E R
UniRef90_A7H9T7	V V L V P P F E T T S Y G G G T S R G P E A I L S A S R Q V D L F D V E
UniRef90_UP100034CF9CD	S A Q V V I L P I P Y E T T T Y R R G C E H G P S A I L K A S Q Q V E F Y D E E
UniRef90_Q2JKT0	K L L P V P Y E T T T S Y G K G T A K G P Q A L L Q A S A Y V E I Y D E V
UniRef90_TOLP41	A H Y V I F G V P F D Y T T S S R R G S S R G P E V R R A Y D N L E S F D V N
UniRef90_S6FR05	A L I I G V P L S K S S S H S G A C F A P G A I R R A L L G G I S A Y S A E
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UniRef90_K0J789	R I E I L G T P F N G L G S P P D T E N P A E G L R L A E L V P L L E S K E
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UniRef90_J9HHV8	R H I H V L G Y P F A G G Q G R A G P E L S P A W L F T Q Q W I Q N R K G V S
UniRef90_C1MPV0	A R S V A L V G A P T N L G Q R R V G V E S A P E T L R R L A R D G A L A P P G
UniRef90_W8NRQ7	A R Y V I L G V P F D T T S Y K A G A R F G P T L R Q A T L N L E S Y V L D
UniRef90_G2Z4R2	I K L I G P Y D S N S S L K G P S F A P D R I R L M E K E G S A
UniRef90_Q2SG62	I T F M E I P P D F A V S R P G T R F G P A A I L E A L N G F S L Y C T D
UniRef90_Q6L151	N A R Y V L F G V P F D T S S Y R R G S R L S P N Y I R Y A Y N N L E S F E I N
UniRef90_Q1NLN8	R I A V L S A P L N T V S W G G G A E H G P A A I L E A S L A L E V F D D E
UniRef90_O57839	A D Y I L G L P F D T T S Y K P G A R F G P V L R Q A T L N L E S Y I L D
UniRef90_K2JYJ8	I I I G F G D G T A F R K G T R N G P D G L R A V S E D I E S Y S P Y
UniRef90_K9XHU4	L L L P I P Y E T T T Y R R G C E T G P D A I L A A S Q Q V E Y Y D E E
UniRef90_M4VAF3	H R F S Y I E A P V Y Q G Q K N F G T A L G P A F L R Q S L L D Q G F Q F N T
UniRef90_F4FY06	T S S F R P G S R F A P Q K I R Q V S Q F I E Y L S I R
UniRef90_C1E4R3	R S I E L I K N R S D I G A G T R G S D L G I D A I E I A A I N K G S L F F K
UniRef90_D7VSA3	K K T I F L G F A S D T G L G R T G A K L G P D Q I K T Q L A K L P C H N
UniRef90_Q5ZXM2	V A V L P P V P Y E T T T F K T G T K N G P Q A I I S A S R E V E L F D E E
UniRef90_W7YCU7	K F V I L P P V P Y D Y T Q T K K G A R K G P K A F L S A A K H I E L Y D I E
UniRef90_TOLFC6	S K T V I L P P V P Y D Y T Q T K K G A R K G P K A F L S A A K H I E L Y D I E
UniRef90_U3QCK7	R R I V V I D A P S N L G G T V P G C Y K L A G A L R E Q R V V E R L G A V E
UniRef90_D9WW82	A A K V V I L P I P Y E T T T F R K G C E N G P D A L L E A S D Q L E A Y D E E
UniRef90_K9SYR4	T V V L V G E P V D R A V G R R G A K A G P S A L R E A L A G V K T N H F E
UniRef90_J2ZGC3	S K S I T F L I N K S E I A A G T R G A S S G P E A I I T T A R K K E R Y I F G
UniRef90_G8X5V4	I G V V G M P S D T H S S R L G T R F G P D A L R R A T T L L Q S I R P Q
UniRef90_B6ATN5	T A K V V I V P I P Y E T T T Y R R G C V N G P A V L L N A S Q Q L E C Y D E E
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UniRef90_UP10004723885	R R I A V L D A P S N L G T S V P G C A K A P G A L R D Q G L L R R L N A R D
UniRef90_R4LQ12	F G V A G V A W D G T T N R P G A R F G P A A I R Q A S A M L C D A T H P
UniRef90_E6PUU8	U N F D A A I L G A P L S K T S S H S A A S R L P D A I R T T F H T Y S P Y N I N
UniRef90_UP10004054CA0	A D A V I F G I P Y D T A S Y K A G A R E A P T A V R R A S Y N F E E F H F E
UniRef90_M4YLL4	R V S L I L G I P H D E N S S Y R P G C R Y G P E V R R F S A N I E A N S Y R
UniRef90_C9YDE0	A R Y C V F G V P D L T S S R P G C R Y G P E V R R F S A N I E A N S Y R
UniRef90_X6I0T2	D M A L Y G I P M D L G T N R S G A R F G P R A V R G V E R V G P Y E H V
UniRef90_E6N8P0	R V S L I L G I P H D E N S S Y R P G C R Y G P E V R R F S A N I E A N S Y R
UniRef90_D3P2M0	A R Y C V F G V P D L T S S R P G C R Y G P E V R R F S A N I E A N S Y R
UniRef90_UP10003B5596C	U N F D A A I L G A P L S K T S S H S A A S R L P D A I R T T F H T Y S P Y N I N
UniRef90_V4JJ23	U N F D A A I L G A P L S K T S S H S A A S R L P D A I R T T F H T Y S P Y N I N
UniRef90_W7CRS8	U N F D A A I L G A P L S K T S S H S A A S R L P D A I R T T F H T Y S P Y N I N
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UniRef90_A0A033USH2	U N F D A A I L G A P L S K T S S H S A A S R L P D A I R T T F H T Y S P Y N I N
UniRef90_V4U8J5	U N F D A A I L G A P L S K T S S H S A A S R L P D A I R T T F H T Y S P Y N I N
UniRef90_S9ZUS3	U N F D A A I L G A P L S K T S S H S A A S R L P D A I R T T F H T Y S P Y N I N
UniRef90_UP10004712FA9	U N F D A A I L G A P L S K T S S H S A A S R L P D A I R T T F H T Y S P Y N I N
UniRef90_H8MMK1	U N F D A A I L G A P L S K T S S H S A A S R L P D A I R T T F H T Y S P Y N I N
UniRef90_H1GTG2	U N F D A A I L G A P L S K T S S H S A A S R L P D A I R T T F H T Y S P Y N I N
UniRef90_G8R740	U N F D A A I L G A P L S K T S S H S A A S R L P D A I R T T F H T Y S P Y N I N
UniRef90_D3T1B7	U N F D A A I L G A P L S K T S S H S A A S R L P D A I R T T F H T Y S P Y N I N
UniRef90_G2PIW5	U N F D A A I L G A P L S K T S S H S A A S R L P D A I R T T F H T Y S P Y N I N
UniRef90_I3IQB6	K S I A I L G Y A C D E G Q Q G R V G A V T G P D V I K S S S F G K M P N H L G
UniRef90_G7V772	K I I M G V P F D T A T Y Q T G T K V G P Y A I L N A S I N V E P Y D D E
UniRef90_UP10003FBD3D1	A H I A I L G F P E D R G G G K P G A A L G P E H R K A F Y K L T P G
UniRef90_C4JXV5	N H K I G I L G Y A S E E G Q G R T G T I E G P S A I R K M L G S I A L H L P E
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UniRef90_K9YX62	K D I L F L G F C C D E G V G R P G A R N G P E A I R K Q L M S L P
UniRef90_S9T4F3	T I V F F P V P W D T T S Y G A G T A K G S Q A I I E A S V Q L E P T D Y H
UniRef90_E7NWS0	T C A I I I G F E C E E G Q G R L G A A A N A P N A I R Q A L A S L P W R T A E
UniRef90_UP10003672090	N A R V V I L P I P Y E T T T Y R I L G C Q Y G P A A I L A A S D Q L E Y Y D V E
UniRef90_UP100025597B1	F H L P I P Y E E T S Y G G T G K G P A A I I E A S H Q L E T F D N F
UniRef90_A0A016SIB3	I T A I G C A N G N G G R H L G C E H A V K I L R N S K F L E Q V R V P I
UniRef90_UP100047D62A9	D V G I I I G V P L S R S S S A S G A S E H P N A F R R A W K Y F T T Y N L D
UniRef90_X1QHP0	N P D V G L V G I P F D T S T L Q R G S R G G P E S V R D A F M F C D C Y E P G
UniRef90_UP100030BDCD8	Q N L I I L G F C S D E G E G R T G A K L G P F K L R E Q L A K L S C N
UniRef90_A3XFM7	F R V I P V P L E R T S Y G A G T A S G P E A I I E A S N E L E R L C R G
UniRef90_W2TZM1	S G D V G I L G V P W D G A V G R P G S R L A P S R V R S W L Y S S P Y I L G N
UniRef90_P60109	N A K V L L Q S I P Y D G T S T W K G A D E G F E A F L D A S E N M E I Y D I E
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50 60 70 80

UniRef90_F0XA37	N G V N P F R D W A K V V D C G D V P F D K L L A I H E L Q K G W E A V A S R K
UniRef90_UPI000317EA05	C P I L N K D L N E L G Y L D F G S L S I D L T N T E S V I N K V N Y A T
UniRef90_B8E0V1	L D I P A E V G I Y T H P D L S L S G N L K K A L E E I E N F T
UniRef90_E0UFT8	L Q Q E T C I D V G I Y T H A A I A D T R S Q A I S A E E M L Q V T R E T V
UniRef90_UPI00040A7AC4	E N A V E K L R S V N D L L D K P T P Y R F A K R I D G L N K V Y D I L N D K V
UniRef90_B51FF7	H K I S L S E L P I H D M G D I G T L D E F G N V E D V I E T V Y S T
UniRef90_R5VUH0	T C S P D L N V A T T S V L N A I D W G D I P V E N G N T K E S F D S I S Q H I
UniRef90_F8MKX7	A T I I D C G D I P I T P F D N A V A V A L E Q M S E A F E L G S R S A P I G E T G
UniRef90_X1AGZ9	L K R E I Y R V G I H T L P E I Q P D M T S P E N M T Q R V Y T V A
UniRef90_G8LRA3	T N S E V Y K R G I Y I S Y P I I N Y S F S S K K M I E Q V Y N I T
UniRef90_UPI0003DF4FBE	L D V K D Y G D I L Y E A K K V T E I D N M T H L G D V A G C T S K L S E Q F
UniRef90_X1QJ87	W E S F S D L K I L D L G D V Q G K D R K K I F K Q A E E L A N Q V
UniRef90_D1YZD9	L D V D L A D V P I H D M G D C D V C C A V I D D T L N E V Y D V A
UniRef90_S5Z723	T G L D V E F A N V F D A G D L P L V T C V D S L V R V V G R V V
UniRef90_D3HQ18	D K S F W D L G N V C E E D E L E T A Q S Q F A H L I
UniRef90_C0NLY2	Y N T R A A I N P Y L N W A R I L D C G G P I M F F D N G V A E R Q M Y E A
UniRef90_G0EF23	V E R S V A L V P V H D A G D A V I E A S V R D T L D S V A E L V
UniRef90_A7H9T7	T G R P Y E A G I H M L E V P E H L A R A A A V D A A C E Q V N R W V E E R V
UniRef90_UPI00034CF9CD	L D R E V W T I G I Y T H D P L A D S R H G S R K S S A E M L A V T Q H T V
UniRef90_Q2JKT0	R D R Q P A L H P D F S E E S R Y W T A P P V E L E G L E L A M A E I Q R R A
UniRef90_TOLP41	Y E V D F S E L P I C D I G D I Q V N E D A S E T V D L V E E V T
UniRef90_HVID	L R E H V I D Y L Y D I G D I Q I H V T D V V T S H E H I Y R T I
UniRef90_A6FHG2	D N A T K T S T F V D A G N I Y C S D T D L L A A S Q K E L I A N H V
UniRef90_K0J789	H S V T D L G D S D F Q F Q G I R D P E T G I K D L D S W V E L S N S L S R K L
UniRef90_Q5AVL1	T G Q N V F E S W A K L V D C G D A P L T W L D N T V A L L R L W Q V I S S R A
UniRef90_J9HHV8	L E M I D V S N P N N N N V D D K C I L H G H R N W N N V L Y S C Q K L E E A T
UniRef90_C1MPV0	W D V H D L G D A F F R S A A D A A A D G G A T P F A A A S A A H R K L L A D A V
UniRef90_W8NRQ7	Y D L D I A E L P I A D I G D I A V V A G D P R K T A D R V R E T I I
UniRef90_G2Z4R2	N S Y S E N G T E I K K D E N Y V D L G D I N F E E T N P E I A Y K K I I K N K I V
UniRef90_Q2SG62	K R A D L S S L R F R R G A P V P V S N D I H Q T Y S R I I E E A V
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UniRef90_O57839	Y D I D I A E L K I A D A G D V A L P V S I E D A I K V A V E T I K E V R S
UniRef90_K2JYJ8	L D A D L H D Q T F Y D L G N L S L G N E A D V E A Q W Q H A S D D F A A I F
UniRef90_K9XHU4	L D W E T G L D V G I Y T H P A I A D T R S G A V T S E E M L Q V T R E T V
UniRef90_M4VAF3	Y S V Q V S Q S Q K H M P F S I Y E E L S W L T
UniRef90_F4FY06	S G I D M S N V G F V D Y G D I V L H P S D V A E N I E R I T Q V T
UniRef90_C1E4R3	W D A R D L G D A H E P K P P V P S P P T N A W R D A D A A S L H E I V A R R V
UniRef90_D7VSA3	K Y P F V D V Q T R N D S V Y E N D F N P F G K H I K Q V Y Q Q C K Q V A S I V
UniRef90_Q5ZXM2	N K H Y V D L G N V V C E N D E L E L S Q S Q F A Q I V
UniRef90_W7YCU7	T G N D V S K K G I Y T L P P V I E D R S P E K K M S E A V E R A I
UniRef90_TOLFC6	L E F E P H T I G I A T L Q D M E V T A L G P E K K M S Q R I I Y Q T A
UniRef90_U3QCK7	T N S E V Y R K G I F L A P S V V N Y S E S T K I M V E K V Y N T T
UniRef90_D9WW82	G G V V V P P R Y D R G D W R E G D G V F N A G A I A A Y T R K L A D R V
UniRef90_K9SYR4	L K R E T C I E V G I Y T H P A I A D T R Q N P D L C A D E M L A V T T E T V
UniRef90_J2ZGC3	T G A R D S T I A D L G D V A D L V R L D D R S A N A T V G G I Q N L V R Q A T
UniRef90_G8X5V4	E N T L E T I K D V N S Y L D K P T K F P F A K R I D G L L L S V Y E E L N T K V
UniRef90_B6ATN5	G A S V D P D T S R R T V P A I D W C G D A E I T A Q D V D I A T T Q A I A A M T
UniRef90_Q10Y47	L D R E T G L E V G I Y T H E P I A D T R N G K K I T P L D M L K V T Q E T V
UniRef90_UPI00047BC111	E D I D L S E L T A L D V G D V P M H V T N I G R C H D N I I A A S
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UniRef90_R4LQ12	A G G L T P P R Y D P G D W R P G D G V A H A R E I N G Y S R R L A D R I
UniRef90_E6PUU8	L F D L A S A E H G V A T S P V V H H G D L H L P N T S L V A M R A V L E P Q A
UniRef90_UPI0004054CA0	H Q L D L S R D I Q V V D I G N V K M H M T D L P R C Q Q L I E D A V
UniRef90_M4YLL4	H G L D Q E L P V V C D Y G N C D D F I L P E D M M V E E V R F A V
UniRef90_C9YDE0	R T V T W G D T I S A Q P M R A T S R L H A I E V F S D H L S M A V V
UniRef90_X6I0T2	E T G F D V A D S F V D H G D I D F S G A G G P W E R I E E A E V
UniRef90_E6N8P0	K G F D I S T A K I A D L G D I F E Y K L P K M L R K V E K V V
UniRef90_D3P2M0	L G L V P T G N H V V V D V G D V P F R S R F D L A Q A H A D I E R F V
UniRef90_UPI0003B5596C	F P E L W K L G M H L D D K W S Q Q S A D Y K A M A Q P I I E A L D A L R E R V
UniRef90_V4JJ23	T A T E P Y R Q G I E T L P P V L C H E S P E M L A Q H V H E Q V
UniRef90_W7CRS8	D E V V D Y H N M A F L T D M E Q F A I L K L K D L K A I T Y K A K E L R D I V
UniRef90_UPI0004722E5B	S H Q I V D L G T V V C E D G K L E D A Q R E L G Q T V
UniRef90_A0A033USH2	L D H I D V H K H L S I G D V G D V S T V P H D V D Q T V Q N I E A F A
UniRef90_V4U8J5	E E G K E L N D P R V L T D V G D V P V Q E I R D C G D D R L M N V I T E S V
UniRef90_S9ZUS3	V D A Q W V D T L H P V A D T N D A F D M R T R L E L N G A F A R T L L A K A
UniRef90_UPI0004712FA9	F T K F S P V Q R L N L V D C G D V N V I P S V I E Q S F D Q T E K T A
UniRef90_H8MMK1	T G R P Y E R G I A M L E A P A E L H T W N E R A K E R A E K L N E H V Y R T T
UniRef90_H1GTG2	Y P D L W K L G I Y I D E A P E H W A V D L D T I N A V C D K F H K E V E E K V
UniRef90_G8R740	L K D A W K R G I F M M E Q D H K W E A T S N Q Y R H L A E K H I D N L E E E L C
UniRef90_D3T1B7	A G P C D Y G N V S L A T A E T G T P A A T D D T E L T T I R S A V E P V A
UniRef90_G2PIW5	S N V L L H D V G S I T C P D G D M E T S Q K T L V A E V V
UniRef90_I3IQB6	L G D I Y S A G I F T V G I L N L E E H T D A K K V I L E A V Y H V S K G I V
UniRef90_G7V772	F G K A L M G K I I D I G N I I P G P T T L K E S H S R L A E A V
UniRef90_UPI0003FBD3D1	D L P I L D Y G D I F T L D Q D M E S S H E V I S K I T
UniRef90_C4JXV5	G G V N P Y R S W A R I L D C G D I P V T P L D N D V A S R M M Y E G L Y E S A
UniRef90_F2LQK3	F D I D G P L L Q E R D D I R F V D C G D V I A D L A A P G S H Y Q R V E A A V
UniRef90_UPI0004755113	F H W P D K I S H E G G N I M C D Q N E M E I A Q Q L L A N T L
UniRef90_K9YX62	V Y E A W Y Q E A G G H H N D S T I Q P E L E I I N E A S E K L N D W V Y E Q S
UniRef90_S9T4F3	D H H L V D A G N V T C S N D K L E E A Q A A L G C A V
UniRef90_E7NWS0	L K L F D C G N V F I D D L S L R E A Q D S L A E A V
UniRef90_UPI0003672090	L E R E T C F E V G I L H T H A P V A D T R Q G A V S E V E M L A A V R E A I
UniRef90_UPI00025597B1	S S P C D I G L Y T R K A V D V D G P A E Q V M E N L A K A T
UniRef90_A0A016SIB3	Q W K N V V E E V T T G R H F E A L A G V T Q Q E V Q K V Q A T C K E L A F H T
UniRef90_UPI00047D62A9	E D E S I S D L Q V V D I G D V R Q H V T D I S V C H T N I I K E A M
UniRef90_X1QHP0	L D I D I S S N L Q I V D F G N I D V V H T E V P E T H R R I E A V L
UniRef90_UPI00030BDCD8	F D K Q F I D I G N I V C E Q E Q L U P E S A Q Q Q F A T L L
UniRef90_A3XFM7	A E P C A R G I F T E P A L D C D G P L A E V M E R L A Q R T
UniRef90_W2TZM1	L P L Y D A G D V A C A D G D L A A A Q Q R L G E R V
UniRef90_P60109	T S I I D L G D V D V V V G D H N E T W H R V E E T V
UniRef90_F0QWE8	T D S E V Y K Q G V H I D P I L E D A S P E A V F E T V Y K N T
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UniRef90_B8E0V1	F N I I D Y K H F P V F L G G E H S	T T K A I L R A Y T K K Y D S F S I L H D		
UniRef90_E0UFT8	S E L I A D H K F V I A V G G E H S	T T G V V S A Y Q Q I D E P F T V I Q D		
UniRef90_UPI00040A7AC4	S A I L N T N S F P I L A A D H G S A G G T I A G I K S A F P D L G V V W D			
UniRef90_B51FF7	M Q S I L P N K F P I M G G E H S I T I G A A K A L K K L N A G I I F D			
UniRef90_R5VUH0	A D F A K T G A V P I T L G G D H S M A F P E L M G Y K E I Y G K L A V H F D			
UniRef90_F8MKX7	K G K G K G K G R P I T L G G D H S L A L P A L R A L K K V Y G R V V V H F D			
UniRef90_X1AGZ9	R E L L D K N K T L L M L G G E H S L T L G M V K A Y R E K H Q A L S V L Q D			
UniRef90_G8LRA3	K K Y L F K K K F V T L I G G I H S S I I G S I R A F G E K F P D M S I L H M D			
UniRef90_UPI0003DF4FBF	Q Q V L K K D Q K V L T I G G D H S I G I G T V D G H I K K K G D I A L I W V D			
UniRef90_X1QJ87	V K A K K L L T M I G G D H S T T P I L Q G I R A L E E E P L G I I H L D			
UniRef90_D1YZD9	S S I V K A K K I P I M M G G E H S L T Y P C V K A Y K E K I G F V V M D			
UniRef90_S5Z723	E E V Y D S G K R I I S L G G D H F V S Y P V I S T V A R K T G R L G V L V F D			
UniRef90_D3HQ18	S F C H Q Q G H Q T I A L G G G H E A P A W H Y Q G L A P H Y S K M G I N F D			
UniRef90_C0NLY2	F I E L G T R E A P N P I P G A F R T E S P R L S H W A V			
UniRef90_G0EF23	E M L V S R G K R V I L V G G E H T L T L S V V K A M V R R A R A N P L L I V F D			
UniRef90_A7H9T7	D G L L A R G K R V G L V G G D H S T A L G A I A A H A R R Y P G L G L L H V D			
UniRef90_UPI00034CF9CD	Q R L I A D N K F A I V L G G E H S I T A G I Y R Q A A N P N E P F T V I Q I D			
UniRef90_Q2JKT0	A E W V R P G R F L L S I M I G G E H S I S G P L I A A H L A H Y P E L H V L Q I D			
UniRef90_TOLP41	S I I T R D G K I P I M I G G E H S I T G G S I R N F G D A S M V I D			
UniRef90_S6FR05	H D I L L Q P D W V P V I L G G D H S I S Y S T I K A I A E T K G T T A V F Q F D			
UniRef90_A6FHG2	E T A L N K Q N K V M V L L G G G H E I A W G T F Q G L A Q H F P K I G I I N F D			
UniRef90_K0J789	G T I L L S R G A F P L L C S M L V G I L S A F A R R D T E V G L I F L D			
UniRef90_Q5AVL1	T N S T E N G R T P V T L L G G D H S I T T L S A L R S T Y K H F G P V S V I H F D			
UniRef90_J9HHV8	D R T L L R R D H F P I V F G G D H S I Q G I G S I N G L K N V P E T R I L W V D			
UniRef90_C1MPV0	T R A L L G A G R H V L A L L G G D H S I V S I G S I A G V L R D A P S A R I V W D			
UniRef90_W8NRQ7	E K R V N P N A I P I L L G G D H S I Q T F P I I S A F S E K T E K I I N I L H D			
UniRef90_G2Z4R2	T S L L P P S T M P I F I L L G G D H S I T D P I M R G L R S G G Q R F G L I V F D			
UniRef90_Q2SG62	R T I F N D K K V P I M L L G G D H S I T I G A V R N L R N V K M I L I I D			
UniRef90_Q6L151	S V E L A A G L F P V L L G G D H S I T V S G P A A L A M Q R Y Y P A L H V V Q V D			
UniRef90_Q1NLN8	I N P R A L P I F I L L G G D H S I M T Y P P V K V L E P K S Y V V F D			
UniRef90_O57839	G D L A A E Q V K V L T L G G D H S I T S Y A P I R K Y L A Q Y P D L V I L H D			
UniRef90_K2JYJ8	F K L L V R D G K F V I S L L G G D H S I T T G I V E A Y R Q A Y P D F T V V Q I D			
UniRef90_K9XHU4	E R E L L R R A N P I F I A G G D H S I L S I G S V Q F G L L R A E P D L K V I W V D			
UniRef90_M4VAF3	S Y L S D L K K I V V S I G G E H S I T V T V G T V L G T K A D C V L S F D D			
UniRef90_F4FY06	H D A K T S G A V P L I L G G D H S I V A I G S V V A G A L R D D P A L S V I W D			
UniRef90_C1E4R3	E D S I L L K E N F P L V F S G D H S I S S A I L G T I S G I K A A L P D L G V I W D			
UniRef90_D7VSA3	H F C H E N G H Q I C A F G G G H E I A W A H Y Q G L S S L Y P K L G V I N F D			
UniRef90_Q5ZXM2	T Q L L G D G K L P V L V G G E H S I S L G A F K A M A K R Y E N I T F L Q F D			
UniRef90_W7YCU7	K K L L V S Q N K F V I M L L G G D H S I T Y G L V K A Y Q K K Y K D L T V L Q D			
UniRef90_TOLFC6	K K Y I S K K K F I T F I L G G D H S I S I G S I R A F G E Q Y T N L S I L H M D			
UniRef90_U3QCK7	E R H V R A G D F P L V L V G G D H S I C Q L G A S V A L R R I G R Y G L A V D			
UniRef90_D9W82	S R F I A L A D N K F V I A V G G E H S I T T G L I R A Y Q Q A I N D F T V V Q I D			
UniRef90_K9SYR4	D R V H A L D A L P V F L L G G D H S I T Y P N V A P L D E G S V G V N D			
UniRef90_J2ZGC3	S S L L Q K K Q F P I I L A A D H G S I A G G T I A G I K S A Y P D I G V I W D			
UniRef90_G8X5V4	E G L L S A A G A I P L A I L G G D H S I H Y N S F P A C L G Y S R P N A R F G Y I Q I D			
UniRef90_B6ATN5	E K L L V S D G K F V I A V G G E H S I T N G I V K A Y K K L Y E P F T V I Q D			
UniRef90_Q10Y47	F A L L H Q H F E K V P C A I L G G D H S I T A M M V K G L H Q A K P K I G I L Q F D			
UniRef90_UPI00047BC111	S K I L L E N D T M P I V L L G G G H D I L A Y P H F N G I K K Q P K I G I I N M D			
UniRef90_UPI0004723885	S A I I D Q G E F P V I L L G G D H S I C V L G S A L A J M H R V G G R I G L V F V D			
UniRef90_R4LQ12	E A L L M R S Q H M L W L G G D H S I T L S L R A R K V H G P L A V L H F D			
UniRef90_E6PUU8	G S Y W E H H S A P V V L V G G D H S I V T G A S V L G L T R A T K N F G I I H F D			
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UniRef90_M4YLL4	Q Q V L R Q G Q Q P L V V V G G D H S I C A V G T W S A V A D H L R P L G L I W D			
UniRef90_C9YDE0	G R A L L D A G H P L I S I M I G G E H S I H A I A W P V L R A V R R H A R L T I V Q D			
UniRef90_X6I0T2	E I I L S A S G K S P I M I G G E H S I F S T Y S C F K S L A E K K S S C I I V L D			
UniRef90_E6N8P0	G A M V A A G T V P L G V G G D H S I V T L P V L R A I G R D R P V G L I H D			
UniRef90_D3P2M0	L Y W T K K G K K V A V L L G G D H S I H T S T P L G Y Y E A L A S L H D D F G I L H L D			
UniRef90_UPI0003B5596C	T A I L E A G R L P V V L V G G D H S I V S V S I G A I Q A A A A V P T F S V L Q V D			
UniRef90_V4JJ23	A D I K N E G S S M P I I F I G G D H S I Q L I S S S I A G M E D E R E Q T V V W V N D			
UniRef90_W7CRS8	R Q C L T D N R K P V I L L G G G H E T A F G H Y L G V R K F V G P I G V I N D			
UniRef90_UPI0004722E5B	E D L L W K S N K F L V G G G D H S I H T Y P I L K G L T N T G K K V G I I H L D			
UniRef90_A0A033USH2	K L V M E D P L H P L I S I M I G G D H S I C S I S F V I R A V V S E K G G P V D V L H L D			
UniRef90_V4U8J5	T A I L E A G A A P L G F G G D H S I V S V S I G A I Q A A A A V P T F S V L Q V D			
UniRef90_S9ZUS3	UniRef90_UPI0004712FA9	V A A L P A G V P L P F V L V G G D H S I H A I A S G T W R G V G R R L G H A P G I W V D		
UniRef90_H8MMK1	L S L H E A G A A P L G F G G D H S I M S L P L L R A A N A H H K D M V V L H I D			
UniRef90_H1GTG2	K H W L E Q G K R V V A A V G G D H S I H A I S F G I Q A H H E K Y P G M G V L H L D			
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UniRef90_D3T1B7	A N A L N D N G K R V V A L L G G D H S I S T P L G Y M Q A L A E R H A D F A I Q D			
UniRef90_G2PIW5	R A V H D S S A T P I F I L G G D H S I C T V P N V R P L L E R G D A V G V I N F D			
UniRef90_I3IQB6	K V L L E K K Q F P I V L V G G D H S I H D M A Y G H Y N G I K T Y Q G T I G I I N F D			
UniRef90_G7V772	V K D S K F L V T L V G G D H S I I S Q G V K Y K E K Y K K L S V L Q L D			
UniRef90_UPI0003FBD3D1	K T V V E N G V F P I V L V G G D H S I H D G F C G L V E G L K G Q K E L G A I N V D			
UniRef90_C4JXV5	Y D L L L S S S N H F P V V L V G G D H S I H G R G V L N F V R E K N E K L G V I N L D			
UniRef90_F2LQK3	N S L L Y G D K P K L I L L V G G D H S I H S I A L P R A L K E I H K P L A L V H F D			
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UniRef90_K9YX62	C L L L D Q N K L I G L I V G G D H S I H S V P F G L M K A L S E R Y N H Y G I L Q I D			
UniRef90_S9T4F3	S D L L F A K S A T P I I I L V G G D H S I H E T L Y G H Y L G V R Q H I G P L G I I N F D			
UniRef90_E7NWS0	D K I L S L N L F P I V L V G G D H S I H E T A F G H Y L G F K H F Q K I G I I N F D			
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UniRef90_UPI00025597B1	S E I L Q L G K M P V P G I V G G D H S I V T W G L I K Y L D A G I K D F G V V Q I D			
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UniRef90_X1QHP0	T A I N K S G V I P I V I V G G D H S I H G T T Y A N V K A L N S F R G N I G V I N F D			
UniRef90_UPI00030BDCD8	T A C H Q Q G Q Y K T L A F G G G H S I I A W P H F S G L A A H Y P K I G I I N F D			
UniRef90_A3XFM7	E A A V R A G K L P V T L V G G D H S I S L S Y G A V T G V A R A K Q R V G I V Q I D			
UniRef90_W2TZM1	R K V I E N K E E L L V V L V G G D H S I C A M G T W S G V A R R D G D L G L I W V D			
UniRef90_P60109	A Q V I I A A G H P L V L V G G D H S I H E T A Y G H W L G S A A H P D I G V I N F D			
UniRef90_F0QWE8	S E A L G L V R E L V V I V G G D H S I D S T S S Y A A F R G L K R V V N D L A Y I L L D			
UniRef90_UPI00037181E7	Q Q I L L A S H K F L T F F G G E H S I S I G I K A F Y E A H P D I T I L Q L D			

130 140 150 160

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UniRef90_UPI000317EA05	A H A D L R N S Y L N N K F S H A C T
UniRef90_B8E0V1	A H S D L R G E Y E G T E N S H A C A L R E A S E K I
UniRef90_E0UFT8	A H G D M R S S F E G S I H N H A C V M R R V L E M G L P T L P
UniRef90_UPI00040A7AC4	A H A D I H T P F T T P S G N M H G M P L A T A L E E T L A F W N K L K Q T G S
UniRef90_B51FF7	A H G D F R D E Y L G N K Y S H A C T A R R A Y
UniRef90_R5VUH0	S H S D T Y H P M D A D A P F D H G T P F Y D A I T H G
UniRef90_F8MKX7	A H L D T W H P A K Y P S A W P S T Q S H F N H G S M F W L A G Q E G L L S N
UniRef90_X1AGZ9	A H A D L R D T Y L G T R F S H A T V M R R V C E L C P
UniRef90_G8LRA3	A H A D L R P K Y N G D P Y N H A C S M Y E A S K K F P
UniRef90_UPI0003DF4FBE	A H A D I N T N K T S T T G Q Y H E T P V A L L T Q Y X A D Y W P H L P G M D W
UniRef90_X1QJ87	A H F D L L C D E L N G Y N L S H G S T E R R A L E L
UniRef90_D1YZD9	A H Y D L L R E E Y E G V R N S H A C V S R H I I
UniRef90_S5Z723	A H M D L L R D E Y P F D C R Y S H A T V F R R L L E E N
UniRef90_D3HQ18	A H F D L L R P H Q K N Q P G T S G T P F S Q I A A Y C A E N N Q S F N Y
UniRef90_C0NLY2	A H L D T A S P Y R L F V P C T R S T E N R S P F F H T A S R E G L
UniRef90_G0EF23	A H L D M R E V H Q G A H L A H S T V T L R A A
UniRef90_A7H9T7	A H A D L L R V A F E G F T Y S H A S V I Y N A A E R C P
UniRef90_UPI00034CF9CD	A H G D L L R H K Y E G S I H N H A C V M R R I V D M D L P
UniRef90_Q2JKT0	A H C D L L R D S Y E G S R Y S H A S A M A R V V E Q V
UniRef90_TOLP41	A H S D F R D S Y M G N K H N H A C V T H R A L
UniRef90_S6FR05	A H H D V R N T E D G G P T N G T P F R R L L D E
UniRef90_A6FHG2	A H F D L L R T Y S T D G H A F P T S S G T P F N Q I A K H C Q Q L G W A F N Y A
UniRef90_K0J789	G Y A D F H S P E T S P G G D P A D M E L A I L T G R G P Q K I T Q V A S
UniRef90_Q5AVL1	S H I G K L L I S M E H P L L I V V D T W E P E G L I R D N S I H V G I
UniRef90_J9HHV8	A H V D A N T P L S S P S G N V H G C P V G Y L A G L F P Y V
UniRef90_C1MPV0	A H A D V N T E R T S P S G N L H G M A L A V S R Q R R G L S R R D S N D F G G
UniRef90_W8NRQ7	A H L D L L R D S Y E D N P Y N H A C V A R R I A E L G V R E
UniRef90_G2Z4R2	A H S D L L Y D N F D N N K Y S H A S P F A R I M E S G K I
UniRef90_Q2SG62	A H F D S R P P V K G Q E H S G H W M Y T
UniRef90_Q6L151	A H S D F R D S Y M D N I Y N H A C V T R R C L
UniRef90_Q1NLN8	A H L D L L R R E Y D G T P L S H A C V M R R I A E A G M A F S
UniRef90_O57839	A H L D L L R D S Y Q G S R F N H A C V A R R I H E M G V
UniRef90_K2JYJ8	A H A D L L R D G F L G Y H Y S H A S I M R R A
UniRef90_K9XHU4	A H G D L L R H E Y E G S I H N H A C V M R R I V D M K L P
UniRef90_M4VAF3	A H G D V N T R A S S M T G S Y H G M P L A Y L L G A E N A D H L P W
UniRef90_F4FY06	A H L D L L R D E Y M G Y K Y D H A C V Q R R L S E K G V M
UniRef90_C1E4R3	A H A D L L N T P Q T S E T G N L H G M S L A M V A G L A D A A S W P D G A Y D W
UniRef90_D7VSA3	A H A D I H S P Y T T P S G N L H G M P I A A V L Q H T Q T Y W E K L K H V G T
UniRef90_Q5ZXM2	A H F D L L R P Y K K G E F G N S G T P F S Q I A T Y C E E K K M P F
UniRef90_W7YCU7	A H A D L L R E S Y E G S A Y N H A C V M H Q A K K L A P
UniRef90_TOLFC6	A H A D L L R E S Y Q D N K F S H A C A M K R V W E I C P
UniRef90_U3QCK7	A H A D L L R P L Y K G N P Y N H A C S M I E G
UniRef90_D9WW82	G S S D F R H P G N S D R I G A A G E E L A L A T G R G Q A D L T D
UniRef90_K9SYR4	A H G D M R H E Y E G S L H N H A C V M R R V L E M G L P
UniRef90_J2ZGC3	A H L D V R E V R E D A T S G T P Y R Q L F E T G
UniRef90_G8X5V4	A H A D I H T P Y T T P S G N M H G M P L A S V M E K T I D Y W N R L K N V G G
UniRef90_B6ATN5	G H L D F S D R L G A W G S L N H A T N A R R I S E L
UniRef90_Q10Y47	A H G D L L R D Y E G S I Y N H A C V M R R I F E M G L P
UniRef90_UPI00047BC111	T H F D L L R D M T D N G P S N G T P M R N L I E S G V V E G S N M Y N I G L
UniRef90_UPI0004723885	A H F D L L R K V E D K G N S G T P F F Q I L T E N N F C
UniRef90_R4LQ12	G H S D F R H P G N A S Y V G A A G E D L A L V T G R G Q A D L A A M E G
UniRef90_E6PUU8	A H C D T W A D H F G E P S G H G T W V Y E A V Q E G L
UniRef90_UPI0004054CA0	A H H D V R N F E D G G R T N G T P F R T I L E S G
UniRef90_M4YLL4	A H L D S R D E Y M G T P L S H A C V T R R A A D V H G I E N V C S V G N R S I
UniRef90_C9YDE0	A H L D A H T P D T S D T Q A P H G M P L A A L L G H G A P G M T G L F G W S G
UniRef90_X6I0T2	A H P D L I Y D A Y Q G N R R S H T S S F A R I L E E G L
UniRef90_E6N8P0	A H F D L L R D E Y L G L R F N H A S Y L R R L V E K F P N K P
UniRef90_D3P2M0	A H C D T G G S F E G C K F H H G G P F R Q A V L D G
UniRef90_UPI0003B5596C	A H M D L R I A Y E G F T Y S H A S I M Y N A L H L P Q I
UniRef90_V4JJ23	A H L D S R E S Y Q G S A Y N H A C V M A R A R E L
UniRef90_W7CRS8	A H A D M G R S L N H D N L C H N V M A T V I G K G P E E L G N M
UniRef90_UPI0004722E5B	A H F D L L R S Y E K Q T S S G T M F K Q M L D T D E T T S Y F
UniRef90_A0A033USH2	A H Y D N M P H Y E N E Q F A R N T P F M R L Y E T E G
UniRef90_V4U8J5	A H P D L I Y D A F E G N G K Y S H A S S F A R I M E G G Y
UniRef90_S9ZUS3	A H L D S H T A L T T H S G N I H G M P L A A L L G E G D P A L A A I
UniRef90_UPI0004712FA9	A H T D T Y R S V G Q Q L H E I Y N T A T T F T R A A E E K L
UniRef90_H8MMK1	A H A D L L R V A Y E G F T W S H A S I F Y N V C E R I I P
UniRef90_H1GTG2	A H M D L L R D A Y E G F T Y S H A S I M F N T L K L P Q
UniRef90_G8R740	A H A D L L R D A Y E G F E Y S H A S I M F N A L K I P Q
UniRef90_D3T1B7	A H L D V R H V H D G P T S G T P Y R E L L E S G
UniRef90_G2PIW5	A H F D L L R K N T E Q S N S G T P F Y Q I A K G C E K E D I D F N Y
UniRef90_I3QB6	A H L D L L R D M E Q F G G T P Y S H A S V S R R V A E D L R C K
UniRef90_G7V772	C H L D V R E Y Y Q K E I T S G T P F R R A L E E L P N
UniRef90_UPI0003FBD3D1	A H F D L L R P L V R G K G H S G S P F L Q L A E E N P D D F
UniRef90_C4JXV5	A H L D T L H P S A Y P S I W G S N Q A A F N H G S M F W I A S
UniRef90_F2LQK3	A H F D L D W R D E V N G V R E G L S S P I R R A S E
UniRef90_UPI0004755113	A H F D L L R D F S Q T T S S G T P F T Q I G N L C K K E S V
UniRef90_K9YX62	A H A D L L R N A Y E G F T Y S H A S I M H N A L K L S E I
UniRef90_S9T4F3	A H F D L L R P Y D T K P S S G T M F R Q I V E Q D Q S S S Y F
UniRef90_E77NWS0	A H F D T R P Y K E T G A S S G T M F R Q I H D L N K E N N L P F A Y M
UniRef90_UPI0003672090	A H G D L L R A E Y E G S R Y N H A C V M H R V L E L G C P S L P
UniRef90_UPI00025597B1	A H A D L L R D R Y E G E H K H S H A S V M R L V C E A G I P
UniRef90_A0A016SIB3	A H M D A H T P G T T P S G N L H G M P V A H L L G Y G D K N L T S L G D
UniRef90_UPI00047D62A9	T H F D L L R D L S D N G P S N G T P I R N L I E S
UniRef90_X1QHP0	A H M D V R K A L H G E I S S G T P F R R L M E E
UniRef90_UPI00030BDCD8	A H F D L L R P L K D G H Y A T S G T P F R Q I S Q Y C Q Q N R L L F D Y C C L
UniRef90_A3XFM7	A H A D L L R V A Y Q G E K H S H A S V M N L L I E E G H G
UniRef90_W2TZM1	A H M D A H T P S T T P S G N L H G M P V A H L L G F G D K N L T R L G D
UniRef90_P60109	A H F D L L R Q A S E A T S G T P F A Q I A A D C A R H G R V F R Y L C L
UniRef90_F0QWE8	A H P D V R I V T E G A L T S G Q V I R W
UniRef90_UPI00037181E7	A H T D L L R P E Y H G S P Y N H A C A

170 180 190 200

UniRef90_F0XA37	R T M L F D K S	Y D L E N D A R C G F S Y I R A R E	L D
UniRef90_UPI000317EA05	C F E I L P K Q T I F Q I G I R S G T K D E F D F M R N N T Q L I Q F E E T K D	K I V Q V G I R S M S E E E K D Y V K E R N I K I Y F D Y K L Q	
UniRef90_B8E0V1	K I V Q V G I R S M S E E E K D Y V K E R N I K I Y F D Y K L Q		
UniRef90_E0UFT8		C A E E A Q L I R E K Q I P V V W A R E	I
UniRef90_UPI00040A7AC4	P E A K V R P E D L V Y I A V R D T E E Q E D A V M N R L G I K N Y E V A D V R	D I L N G K I I S I G V R S A S Q E E V E D A K D L N Y E W I D S Y E F Q	
UniRef90_B5IFF7	D I L N G K I I S I G V R S A S Q E E V E D A K D L N Y E W I D S Y E F Q	C V D T E H S I Q I G M R V P E K T H D F A H S S G M D M L T A T Q A H	
UniRef90_R5VUH0		S S S A S N I H A G L R T R L S G T D P S D F V D D S S Q N W L R I S A D D I D	
UniRef90_F8MKX7		I V P V G I R S L S E E E H R F I D E V G I K P V Y A N G L I	
UniRef90_X1AGZ9		I I I Q I G I R S M N I L E K R Y I Q N D N I F Y F H E I Y Q N	
UniRef90_G8LRA3		Q K P M L S I R N V A Y I G L R E L N S Y E R L L I E K F G I T A F G M E D N Y	
UniRef90_UPI0003DF4FBE	Q K P M L S I R N V A Y I G L R E L N S Y E R L L I E K F G I T A F G M E D N Y	K N I A D I G N I I F F P V G V R S V E T Q E L P F V R D K K N I L K A M D I R	
UniRef90_X1QJ87	K N I A D I G N I I F F P V G V R S V E T Q E L P F V R D K K N I L K A M D I R	D D I T D K Y V S I L G I R S G P K E E Y E Y V K K N K K I R S Y T A N D V D	
UniRef90_D1YZD9		S N I E V A Y F R P R G W S K E E Y L Y A K E T K	
UniRef90_S5Z723		C C L G I Q K M G N T D S F F Q Q A Q A L N V H Y L T A E E I Y	
UniRef90_D3HQ18	C C L G I Q K M G N T D S F F Q Q A Q A L N V H Y L T A E E I Y	I S N T S S A H A G L R T R L T G L D D G D Y S N P G E Q G F L R I H A D E I D	
UniRef90_C0NLY2	I S N T S S A H A G L R T R L T G L D D G D Y S N P G E Q G F L R I H A D E I D	E Q L G G Q K V V V I G A R A L S E R E L E R A K R L G V R V I R A R E F F E	
UniRef90_G0EF23		G I S R V V Q V G L R D L S E E E H A Y A E R S G V Q H H D A R L A Q	
UniRef90_A7H9T7		T V Q I S I R S I C K E E A D L I K E K Q L T T V F R A R E I	
UniRef90_UPI00034CF9CD	T V Q I S I R S I C K E E A D L I K E K Q L T T V F R A R E I	G S R L T Q V G L R S I C A E D R Q A I R E R R L H T F F A H S L H	
UniRef90_Q2JKT0	G S R L T Q V G L R S I C A E D R Q A I R E R R L H T F F A H S L H	D V L G E G R I F S F G T R S T S R E E F E D P D P D Y H K V R F V S A D E I I R	
UniRef90_T0LP41		N I I S G Q N L I Q L G R E F S S N S Y E Q Y V K E R Q A D V H T M E M I R	
UniRef90_S6FR05		C L G V S R A S N T Q A L F T L A D Q L G V H Y R E D H Q L A	
UniRef90_A6FHG2		K Y P L L N E E D V V V Y G R A W D H I G E S N I R I Y D R N R M A	
UniRef90_K0J789	K Y P L L N E E D V V V Y G R A W D H I G E S N I R I Y D R N R M A	R G P V I R P K G D I R N D I R C	
UniRef90_Q5AVL1	R G P V I R P K G D I R N D I R C	K K P V L S L K H L M Y F G L R Q W E D E E K Q L I I D Q K I P P W V K S E D C L	
UniRef90_J9HHV8	K K P V L S L K H L M Y F G L R Q W E D E E K Q L I I D Q K I P P W V K S E D C L	A Y D W L R A K R V T Y V G S R E L D P G E E T T L L N A L N V S R F T G V D D L	
UniRef90_C1MPV0	A Y D W L R A K R V T Y V G S R E L D P G E E T T L L N A L N V S R F T G V D D L	U N F G I R S G T R E E V F A E K G G I R W V H A R D Y D	
UniRef90_W8NRQ7		V Q E V Y S H A N S V Q L G V N I Y S R E Y M E R A E R A G V M V R T P Y E I R	
UniRef90_G2Z4R2		D I L G R D S I V S V G T R S T S L E E Y E S P E Y R N V R F V S S E Y V L	
UniRef90_Q2SG62		N S L T Q V G I R T L N K H Q R E Q A K F N V E I E M K D F N R	
UniRef90_Q6L151		Q V G I R S F A A E W Q L V Q R Q G W Q P F T M A R I	
UniRef90_Q1NLN8		K V A I F G V R S G T R E E V M F A S Q S G I E W V H A R D Y N	
UniRef90_O57839		V D H F G A G H Q L I Q Y G I R S G T R E E Y Q W M N E H G T I R K S R Q A F L	
UniRef90_K2JYJ8		F T E R L K P Q N L I I E I G N R A M G S D E I E Y A R S N K I P F F T S H E V K	
UniRef90_K9XHU4		R Q P R L D L R R L V Y V G L R D V D P P E V H R I A N L G I K A F T A D D V R R	
UniRef90_M4VAF3		A E P K L L M A E D L V Y F G V R D T E E P E D M L I E R L L G I K N Y Q V G E V R Y	
UniRef90_F4FY06		H Y C C I G V Q K F G N T P S L F E K A K K L N V S Y L S A E D L Y	
UniRef90_C1E4R3		I V Q V G I R S M C Q E E R V Y D P E K M F F R Y Q I R Q N	
UniRef90_D7VSA3		V V G V G I R N L S E A F R F V K Q K K I I N L F Y A R D L Q	
UniRef90_Q5ZXM2		Y E A S Q K H S L I Q I G I R S M D I I E K K Y I Q K G N I F Y M H E I Y Q N R	
UniRef90_W7YCU7		L R P Y L R D E D V Q L L G I R E Y D T E R A E T A L K I A N M T V E E I R	
UniRef90_T0LFC6		V T K K I N P E D L V Y I A V R D T E P Q E E A V I E K G L K W Y T V Q D V R	
UniRef90_U3QCK7		P N D V S N M V W V G I G W V D G G D L V L I E E Q G G K V F S A S D V H	
UniRef90_D9WW82		M V Q I G I R A I C K E E A D L I K D K N L T V F K A R E I	
UniRef90_K9SYR4		H G F N T K D L K K Y A D E K G V N Y I T L R E T T R	
UniRef90_J2ZGC3		R R P Y Y R D I D V V V M G I R S H D E Y R L D L Q A A G I V T R P V I P T L R	
UniRef90_G8X5V4		V V P Q G F V Q V G I R S A G E R E R E Y V N T I G R G R V F T A R A L R	
UniRef90_U4JJ23		A V S G K H V V Q L G I R D F A K A Y H E Y V L G H G V T V F T A R Q V F	
UniRef90_Q10Y47		G R E E L E R D D V V K L R P E H V A I L I G A R S Y E P A E Q A L L A R L G V R V M Y M P E V L	
UniRef90_UPI00047BC111		K L R P E H V A I L I G A R S Y E P A E Q A L L A R L G V R V M Y M P E V L	
UniRef90_UPI0004723885		A D R L I Q I G S R T L N D E L R D Q L K R F G V E M I E A R H F S	
UniRef90_R4LQ12		V A V L G V R G F D P A E E K F A K D H G I M Y I K A S E	
UniRef90_E6PUU8		V L D P E R T I Q I G I R G N S E Y L W D F S Y E S G M T V I H A E E V E	
UniRef90_UPI0004054CA0		S K I V Q V G I R D F C E Q E V E V A Q K E R V V V F T D R D L H	
UniRef90_M4YLL4		A D I V Q V G L R S A D A A E I P S L D P K R V F F W A H	
UniRef90_C9YDE0		N Q R F I L G D N V C I L G T R R I D Y D E L Q V I E D E K I L H Y E M T T V D	
UniRef90_X6I0T2		V L G I Q E F G N T Q L L F D E A D R L G V H Y I T E R Q L	
UniRef90_E6N8P0		I R N E S L I H T G I H R N Q P E T G Q Q F A K E N G A V T I T I N E I K	
UniRef90_D3P2M0		A R R L L Q V G I R S T K E G R E Q G K R F G V E Q Y E M R T F S	
UniRef90_UPI0003B5596C		A G P T L D P Q R T C V I G A R A W E A E H A L L Q R L G V R V F A M D E V R	
UniRef90_V4JJ23		I D T Q N S W H V G I R G T A S Q V F E H T Q S H G Y N I I S A E T F F	
UniRef90_W7CRS8		G V K T L L V Q V V G L R D M S E N E H R Y I E D S G H A F Y D A V L Q Q	
UniRef90_UPI0004722E5B		V V K T I V Q V V G I R D F C E Q E V A T V V E A D L V H T D A D L K K	
UniRef90_A0A033USH2		V S K L V Q V G I R D Y C E A E N D I I E Q S K T T Y F D R D L K A	
UniRef90_V4U8J5		L C L G I R N D A N L D T Y T C V G A R H F E T S T A Y A S F L E G Q G G E I V T A A S V G	
UniRef90_S9ZUS3		V T S F G V R V V S K E E Q E F V E K S K N A V S V F Y A R D	
UniRef90_UPI0004712FA9		N A L D P R A F V E F G I Q Y N S P Y H Y E W V K Q H V A V M T L N S G	
UniRef90_H8MMK1		Q E G I L S N S S N V H A G L R T D D W S D F E N D D K Q G F L R I S T D D I D	
UniRef90_H1GTG2		M K H V A K I V Q I G L R A Q G S A R P E L R A Q A Q Y G S E L V S A Y E L H	
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UniRef90_D3T1B7		S H L V Q V G I R D F S Q G E I E Q A K A D K R A Y W F T D D W E M	
UniRef90_G2PIW5		V L G I Q R F G N T Q E L F D K A D E L G A R Y I L E E D M H	
UniRef90_I3IQB6		V M G I Q K H S N T N S F K Y A D E V G I Q Y V L A K E I V	
UniRef90_G7V772		V L G I Q R F G N T Q E L F D K A D E L G A R Y I L E E D M H	
UniRef90_UPI0003FB3D31		N Y L A L G I Q R A A N P K F E T A E R L K A K Y I V M E D F R	
UniRef90_C4JXV5		Q E G I L S N S S N V H A G L R T D D W S D F E N D D K Q G F L R I S T D D I D	
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UniRef90_K9YX62		S H L V Q V G I R D F S Q G E I E Q A K A D K R A Y W F T D D W E M	
UniRef90_S9T4F3		V L G I Q R F G N T Q E L F D K A D E L G A R Y I L E E D M H	
UniRef90_E7NWS0		V M G I Q K H S N T N S F K Y A D E V G I Q Y V L A K E I V	
UniRef90_UPI0003672090		K L P K I L P H N M C M V G I R S Y E E G E Q E L L E R L G V R I F Y M D E V D	
UniRef90_UPI00025597B1		E T I K G E D V Y N I G L H G F F N A Y K E Y A D R H G V N Y I T M R Q A R	
UniRef90_A0A016SIB3		P E Q P L L G K N L V E L G I W H N S K A A M D Y C R D K G V T I I T A R E I I H	
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UniRef90_W2TZM1		I K D V D P N A Y I V I L G V R T Y S P Y L F N E A R K L G I N I Y T I D Q V D	
UniRef90_P60109		V Y D A S Q H A N L I Q V G I R S M D S G E L E Y L D R D K C Y F A E E M F G Q Q	
UniRef90_F0QWE8		V Y D A S Q H A N L I Q V G I R S M D S G E L E Y L D R D K C Y F A E E M F G Q Q	
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210 220 230 240

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UniRef90_X1AGZ9	L A G D S I K H I I A T L S N E V Y I L S I D I D V L D P S I M S A V		
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UniRef90_UPI0003DF4FBE	R E I H D N V Y K	R Q G V G K S L E K I R E K M K K F S K I Y L I D I D V L D P A Y A P G T	
UniRef90_X1QJ87	R Q G V G K S L E K I R E K M K K F S K I Y L I D I D V L D P A Y A P G T	G M G I D R I L N E T E T Y L K D C D R I Y L S L D M D A I D P A Y A P G L	
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UniRef90_S5Z723	R V Q V L G D E A E V D D W F R R A E N V Y V T I D I D A V D P S F A P G T	G N S L A W H L A F L D D F M L N L D H I Y L S L D I D V L A E A F A P G V	
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UniRef90_C1E4R3	S L G A E R V A R L V L D H L R V A N G G S T H V S L D V D S L D P T R M N A T	T K K V E Q C V K E V F D Q L K N C D I L Y V S F D V D S M D S E I S E G T	
UniRef90_D7VSA3	T K K V E Q C V K E V F D Q L K N C D I L Y V S F D V D S M D S E I S E G T	E Q S Q A W Q I A F L D D F I L N L D H I Y L T I C L D V L A E C Y A P G V	
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UniRef90_W2TZM1	N E D I A W Q L A F L D T F L L R H E Y I Y L T I C L D V F A E C Y A P G V	T G N I H A I D L P E D F P E L V Y Y V S F D V D G L D P S Q M P A T	
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	S M G I N A V V N E I T S S I G N R I V H L S I N L D V L P A A Q M P A V	T D W M E D S I S K M T D K V Y I T L D L D V F D P S I M P A T	

250 260 270 280

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UniRef90_B51FF7	G T P E F F G L S P M D V K N I I N F L A P N I G A D I T E V C P P Y D		
UniRef90_R5VUH0	G T P E G G G F T T W E A F E M I R K G L L G L N I K G C D L V C V N P T Y D N		
UniRef90_F8MKX7	G T P E P G G W T T R E L I R I L R G L V D V L N V V G A D V V E V S P A Y Q G		
UniRef90_X1AGZ9	G T P E P G G G I G W Y E L L L N L L R E V A R S K R I V G		
UniRef90_G8LRA3	G T P E P G G F F W Y E I L K F L K M V F E N K Q I I G F D I V E L L P		
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UniRef90_D1YZD9	G T P E P F G M T P R Q V R S V I R R L A P K T V G F D V V E I S P E Y D Q		
UniRef90_S5Z723	G T P E P F G L H P D T V R K I I E E T F Y S Q K I T R G L D I V E V N P L V D V		
UniRef90_D3HQ18	S A P Q P G L T P W Q V L P L L K Y I I Q S G K V V S F S D I A E L S P P L D Q		
UniRef90_C0NLY2	S T P E P G G W T T R E L I R I L R G I E K L N V L V G A D I V E V S P S Y D T		
UniRef90_G0EF23	T T P E P E G L T P T Q L Y D A I H E L A G N A R F A T L D L T E Y T P L Y D P		
UniRef90_A7H9T7	G T P V P G G L S F Q E A A A L V G G I V R S G R L V G F D L V E V A P D P D G		
UniRef90_UPI00034CF9CD	G T P E P G G L D W Y S S L T S F L R Q V F E S Y Q V I G C D V M E L A P V A D S		
UniRef90_Q2JKT0	G T P E P G G L G W W E T V E L I R A L G Q Q R Q I V G A D V V E L S V T R E T		
UniRef90_TOLP41	G T P E P F G L N D V D V R Y L I R K L S R K I Y G F D V L E F T P P D F D		
UniRef90_S6FR05	P A I G P G G L Y T E E L L Q A V R F L A S E A D I S G I E I V E V D P T L D F		
UniRef90_A6FHG2	S A P A A R G V N Y E S V E A L L Q P I A G Q A K L I I A D L A E Y N P N F D I		
UniRef90_KOJ789	F P E P G G L T F E E T R E F L S L V W T T Q G I E G M S I A C Y H P V L D I		
UniRef90_Q5AVL1	G T A E P P G G F T T R E L L S L D A L R G L P V V G G D V E V A P I Y D		
UniRef90_J9HHV8	G T P E S Q G I T I D F M L K F F E T F L P E A V G M D F S E V N		
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UniRef90_W8NRQ7	G T P E A E G G L G F W E V I E A I E W L V E N K R I A G F D I M E V A		
UniRef90_G2Z4R2	S H E P P G G M T S R E L L I I Q K I E A N L I G A D I V E Y N P I R D V		
UniRef90_Q2SG62	S V P N G C G L M A Y E V A D A L Y E L A R K T K T I G L D I V E V S P P L D D		
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290 300 310

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UniRef90_R5VUH0	A E I T C M A A A R V A F E F M S L I A C K K E G
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UniRef90_D1YZD9	N D V T S R L A A K L L M Y A L V G L L
UniRef90_S5Z723	E Q K T V R L A A L I I A E L I H S
UniRef90_D3HQ18	A G E I T A L A A A Q V A F E I I T S M
UniRef90_C0NLY2	T R I T A V Y A A K A V I E Y I A A
UniRef90_G0EF23	G E W D G N V G A R L L Y K L V G W M L
UniRef90_A7H9T7	V V I S E Y T T A K L I Y K L I
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UniRef90_Q2JKT0	N G N T S M L A A K L I Q D F I L G S
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UniRef90_S6FR05	D N Q T A R L A A R L T W D I T R A M F
UniRef90_A6FHG2	D G S A G A R L V N L I V N V L S S
UniRef90_KOJ789	T M A E T T L A A A E V A H S L L G L
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UniRef90_J9HHV8	
UniRef90_C1MPV0	
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UniRef90_Q6L151	N G N T S M L A A K M I Q D F I A S
UniRef90_Q1NLN8	L A H A A F T A A K F I Y R T L G Y A
UniRef90_O57839	G D R L G N S T S I T A A K L L F Y V I G M S A R
UniRef90_K2JYJ8	T G N S D V F A A K I V R E L L I V L
UniRef90_K9XHU4	V V I S E F T A A K L V Y K L I G Y H A K G R
UniRef90_M4VAF3	Q A H D V M A T A Q I G I E L
UniRef90_F4FY06	S E I T S V V A A K L I L E
UniRef90_C1E4R3	D E A T R G G Y V D T A R A L A R A L L G E A
UniRef90_D7VSA3	H G N R M A
UniRef90_Q5ZXM2	S E L K T A R L A A L I I A E L L
UniRef90_W7YCU7	P G N V A P D F L A A K L I Y K L I S Y Q V A K Q K K
UniRef90_TOLFC6	D G S C A A L L A D L L
UniRef90_U3QCK7	V V I S E Y T T A K L L Y K L I
UniRef90_D9WW82	E G M T T A A G A R A V A H F L S G Y A A N G G H
UniRef90_K9SYR4	K I N A M A E I A L D I V
UniRef90_J2ZGC3	S E R T E F L A A E M L F Q I L R
UniRef90_G8X5V4	V V I S E F T A A
UniRef90_B6ATN5	H V Q P T V K L G T H V F L T F L T G V A L R
UniRef90_Q10Y47	D N C T A R L A A Q L A L Y I I
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UniRef90_UPI0004723885	A E L T S N A A A V C V W T Y L C
UniRef90_R4LQ12	R D L T T R V A S N L M L S F L T G L A L R K R
UniRef90_E6PUU8	S G I T S I L G A R L I N E
UniRef90_UPI0004054CA0	G G R T A Q A A T D L V C A V L
UniRef90_M4YLL4	S N L T A L V A A K L V K E I A G M M L
UniRef90_C9YDE0	N G A T A A L A A R I I I F T V A S A
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UniRef90_V4JJ23	N Q N S A H F V S T A V L Y V L A G
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UniRef90_UPI0004722E5B	E G D S A H W I
UniRef90_A0A033USH2	G G M T A L L A A N V A F E I L
UniRef90_V4U8J5	S E W D A N V G A R L L Y K M I G W M L
UniRef90_S9ZUS3	D D W D G N V G A R L L F H M C G A
UniRef90_UPI0004712FA9	D E W D A N V G A R L L Y R L
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UniRef90_D3T1B7	G G R T A S L C A G I L F W F
UniRef90_G2PIW5	D N A T A R L A A R A V E Y I V R
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UniRef90_G7V772	D N K T A K L A A A A L T F K I I D H L A G
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UniRef90_F2LQK3	D S T T A S L A A A L I Y T V V M A L
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UniRef90_K9YX62	H A Y E F G A A Q L L Y K L M G I V Q R
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UniRef90_A3XF07	G N A A W D F T A A Q I V Y R L M A A V G
UniRef90_W2TZM1	E H K S S E R L V V N L M E A I Y L
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UniRef90_F0QWE8	N D V T S M L A S A I I I
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  A W E V K F D G H H Q F E E I V R D P P I G L L K N P R L V S S V T E S V A Q A V
  
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	90	100	110	120
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UniRef90_F4XUG6	L E L L E Q G K L V A I V G G D H S V P L G L M Q A L T Q Q H D E Y G I L Q I D			
UniRef90_L7U8T5	E R V V R A K R F P L V L G G D C S	I C S I L L G C L L G L K R T G G R H G L L A F M D		
UniRef90_UPI00036E22DE	R K I L R A A G A I P I T I G G D H G I	P I P I F R A F D G E G P I T L V Q L D		
UniRef90_A3MWM6	R R K T T P P F I M L G G E H T A T L A A L R A L	R P D V Y V H I D		
UniRef90_UPI000478B722	T K A L Q N A D A I V V L L G G D N S I T R P A L H G I N S N L Q Q C G G L L T L D			
UniRef90_M7MYR5	A S I L L S M G M F L P V V M G G G H E V A Y G H Y L G L H Q H L H H L G L L N I D	M L W L D		
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130 140 150 160

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UniRef90_E1QNL7	A H L D S R E E W P L Q G S L S H A T F V R H I I N Q		
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UniRef90_B5F066	A H L D L R Q T D R A T S G T P F R Q L A Q L C D A Q S R A F		
UniRef90_E6TRB4	A H Y D N N K S S E G D P Y G R G A P F A R L Y E T E G V R N E S I V H F G I		
UniRef90_B6ERX6	A H F D L R L N P P A S N D K S D Q L S H Q R I G S S G T P F H Q I A Q Y		
UniRef90_D9VAH6	A H F D L R T A D R A S S G T P F R Q I A A R E A E R G A E F A Y		
UniRef90_A1B165	A H L D W R D Q I N G V H D G L S S P I R R A S E M P H V Q E I F		
UniRef90_UPI0004681538	A H L D W R D Q R N G S G Y T F S S T M R R A S E L P W V K R I V		
UniRef90_K2AVQ4	A H F D M R P L L P D G K G S S G T P F L Q I A E A H K K A K L R F D Y		
UniRef90_UPI0003F91FA2	A H Y D N N L H S N G D P Y G R G A P F A R L Y E T E G V V N E A L V H I G I		
UniRef90_D3F9C2	G H F D L L F D G T T S R T G E M G R M D L A I V L G H G P P E L T S L D G		
UniRef90_B2AFX8	A H F D L R T S R P A S S G T P F D Q I A H A C A E R G Q P F D Y V C L G V S R		
UniRef90_B3V5B3	A H P D F V S T R R N Y Y G S V F T D I L		
UniRef90_K9VX65	A H A D L R D A Y E G F E F S H A S I M F N A L K L		
UniRef90_C7PCC2	A H F D L R M K G E E G S T S G T G F W Q L A Q D C K L E G A P F Y Y L A L		
UniRef90_A0ZFA2	A H A D L R D A Y E G F E F S H A S I M F N G L		
UniRef90_R1HE41	A H L D L R R K A P R A S S G T P F F Q I A E Q C Q I Q G T A F R Y		
UniRef90_R5LQ37	P Y T N Y N T F D T T V S G N I N G M A L A A I N G Y K N S E L R Y Y H		
UniRef90_L0KM36	A H I D W R D E V H G E R H G Y S S P M R R A S E M A H		
UniRef90_UPI0002DEC5CC	A H F D L R E F E S D I A D V K P S S G T P F N Q I S D Y C H K H Q W P F H Y A		
UniRef90_B4UI15	A H T D L L E D R L G I R Y C F G T W S Y H A N E L V G		
UniRef90_UPI00047BB60D	T H L D L R S L D D H G P T N G T P I R N L Q O N G		
UniRef90_G7ZF88	A H F D S R I V P V P G K E H S G H W M H T		
UniRef90_UPI0002DDD8E3	A H F D L R D P A H V H S S S G T P F A Q I A E Q C A A R D W P F V Y A		
UniRef90_F9DS79	A H F D L R S Y D E Q P S S G T M F K Q M L D T D E N V E Y L A L G I Q E F G		
UniRef90_L8D5T7	A H T D L L V E R L G I D L C F G S W C T H I L E F L P		
UniRef90_UPI0003607660	A H I D W R D E V H G E R Y G Y S S P M R R A S E M P H		
UniRef90_S2XTA7	A H F D N R Y E A H S T S G T S F R Q M L T E D E N L D Y F		
UniRef90_Q8FQ76	A H L D L R A A E R P T N G T P F R Q V R E L V G E E F R Y		
UniRef90_A4CGJ4	A H F D L R S P G D A P H G S P F F Q V A R T C Q Q E G L D F H Y A C		
UniRef90_Q96TW0	A H A D I N T V E T T D T G N I H G M P L A F L L G L T A C H A T H P F S W P		

170 180 190 200

UniRef90_C6PUL0	N Y F C I G L Q K H S N T V E L F K T A D K L N V S Y V L A K D			
UniRef90_R8AV83	P T A R V D P T R I V Q I G L A D F S A A Y A R R A A D W G I R V I T	L D D V R		
UniRef90_UPI000467F8EB	R R P Y F R D I D V V V L G I R A Q D N Y R L D L Q A A G I T T R P V P E	L R		
UniRef90_UPI000360075F	L D C K R V V Q I G I R G M T L D P F R Y S R S Q G F R V V P A E D C W			
UniRef90_UPI000344542C	N R L V Q V G I R D V C E E E M S W A D R R I V V F D D W Q L K A			
UniRef90_F4XUG6	R G P L V R D E D V A V L G V R D P E H W S A E H V R D T A M A W L D L S T L R			
UniRef90_L7U8T5	Q V G I R G Q G S A R T E V E A R A Y G A N I I T T N E W Q			
UniRef90_UPI00036E22DE	L Y I Y G V R A Y D D E E Y K Y A K E A G F Y V V E G S D F T			
UniRef90_A3MWM6	L P G E N I V Q I G I Q S F A N S W E Y F A K D A G I H V W P V E A V Q			
UniRef90_UPI000478B722	R K H H S L P F H Y L C M G I Q H G A N T R A L F D T A H R L N T K Y V L A E D D			
UniRef90_M7MYR5	Q T P A I T A D V V R Q I G L R S D A G E K R L V H E A G L E V F D M R Y I D			
UniRef90_W7X3M5	L A G Y A C V G A R H F E T S T A Y H D Y C R E R G A A V V T S E E V			
UniRef90_L9X0J0	K V L L G L Q E Y G N T A V L F Q T A A E G V T Y S L A E T V Q			
UniRef90_UPI0003F4CABF	V C L L G V S R L S N T P A L F N R A D A L C V S Y V E D L D			
UniRef90_UPI0004754925	K P Q K L V Q V G I R D F C E E E Y D F S R E D I K T F Y D L E L K R			
UniRef90_A0A024F4L0	T T K L I Q V G I R S M D I S E L D N M V E E Q T Y F A E Q I I Q D			
UniRef90_K2Q5B0	D E N R I S V K K I V Y I G L R D V D A G E K R I L R E N G I K A F S M F D I D			
UniRef90_B2APQ0	S K I V Q V G I R D Y C E A E A I M A K E N R R I F Y D K Q I Q E			
UniRef90_J5BV10	V E G S N I V Q I G L R D F A P S Y H E Y V V S K N V R V V T S R E V H			
UniRef90_B7DU35	H G P R N K P E S G R A N D A G A K T V T L N E I R			
UniRef90_UPI00034CF698	L R P Y V R D E D V S L L G A R E A E E G Q E E L A R G I S C T N V A E I R			
UniRef90_UPI00037923AE	I G V R V P S V E E L D C Y C R D A H P G R I R H L D A R A V W			
UniRef90_S7U616	V R P Q S L V F L G F R S Y D K E E I N F V R G L E N S T L L S T R D I			
UniRef90_E1QNL7	G A Q N I L H V G A R A F V K E E L F T T E H K I K T I T D K E I I R			
UniRef90_K0B929	P Y I R S E D I V S F G Y R E A D P E Q E I I Q E A D G I I C W S A A R I Q			
UniRef90_S9SET4	L G N T P A L Y A R A A E V G A V W V E D R H M Q			
UniRef90_Q7WJ55	L Y Q L G I R A F C E E E M Q I R A E H N Y F Q D A D E L V			
UniRef90_S6GN28	G V K K L V Q V G I R D F C E Q E D Y V T N H K T Y F D A E I I Q Q			
UniRef90_T0STR5	A A N T Q A L F D E A E R L N A T L V D D L H F H			
UniRef90_D5CGJ9	G P A L D P A R T C I I G A R A W E P E E L A L L T R L I G V R V F T M S E V R			
UniRef90_N6Y5X3	E S V R N E S I V H H M G I R H R N A P E T G K Y A E E V G I A T T I S V R E I I R			
UniRef90_UPI000365B6FC	L D C K R V A Q I G I R G Y S T D P Y R Y N R S Q G F R V V V L A E D C W			
UniRef90_A0A024PL52	L G N T P A L F T R A Q Q L G V E Y V S D T D V I A			
UniRef90_UPI0001D5503E	P Q I S K I V Q V G I R D F C E Q E V E V V K K Q E L V H T D D I K K			
UniRef90_UPI00035E7A99	S Y F C I G V Q K H C N T V D L F K T A D N L G V K Y I L A K D I I			
UniRef90_I3U8X4	M P H V A G I V Q V G M R G V G S A G I A E E I A A Q Q Y G S R I I T S R T V H			
UniRef90_UPI0003FD5649	T R L V Q V G I R T Q T A H L R D Q A T K Y G V E V H E M H A I A			
UniRef90_T0PH04	P G V R K E S I V H M G I P R N S P A Q Y D Y A R S M G A R I F T T K E I I H			
UniRef90_B9JWH4	Q G L Y Q L G I R A Y C G E E K A I R E S N H I Y Y Q D A D E L V			
UniRef90_UPI0003768AD2	K R I G E M C S S H I S V G V R S I D A K T A S S N S N D I L F M			
UniRef90_E8WRM3	G I Q N F A N T R T L N T P A L Y A R A A E V G A V W V E D R D M Q			
UniRef90_UPI00031D10F7	Q Y A C L G V S R L A N T D Y F V L G I Q R Y G N T K E L F D K A H E L Q V K Y V L E E H			
UniRef90_S5TFW6	R R P M L S A A D I L F F A V A N V T D G E A T I R V R N L S M I G L Q			
UniRef90_UPI0003B54083	R Q E H S N N L F L F D F V A K S K A I I Q F L T G Q D I Y			
UniRef90_C7DGT1	R G T M L V G G A Y D H T R A L G Y R L I P G E E V R			
UniRef90_UPI00036BE168	G I Q E H S N N L F L F D F V G A G V V D N D R N I I L F G L N I N S P E H L G Y L F D H G F R V T T S Q F V H			
UniRef90_D4XC86	Q Y A C L G I S R A S N T R I L F E R A A Q L D V L V R E D H E I H			
UniRef90_UPI00047E3925	T K L V Q V G I R D I C H D E V E I I D Q S N V A Y Y D P A I K Q			
UniRef90_UPI0003768AD2	G G N T Q S L F D Y A K E K D I I K Y V F S D E L L H			
UniRef90_UPI000381F0D5	N C I G I Q H A G N I R Q S F D I A K Q L N T K F I L A D E L H			
UniRef90_V9DJL5	A N T D Y F V L G I Q R Y G N T K E L F D K A H E L Q V K Y V L E E H			
UniRef90_S2KNH3	E V P L L P P E R V V V Y G D S L P R D H E R E L V A E G L A Y V P A D E V H			
UniRef90_K9PSD4	H G P R N K P E T G K Y A N E V G A T T I S V R E I K Q A N Q L H D L			
UniRef90_G5JHH1	R C P L L R S S D V A I V G F I Q A S D F E R Q Q I Q T L G I R V V G W E T V A			
UniRef90_K2C7D0	R G P R N S P S Q L E Y A W Q I G A R V F N I R E I R			
UniRef90_R7ZDU1	P D P L V P A E R A I Q I G E R E D R D P D W G W I N D T A I T R I D M F E L L			
UniRef90_D9TBH1	T D G V R N E S I I H T G I H R N Q P E T G R Y A E E A G A K T L T I N D I R			
UniRef90_Q8END5	G V S E T A N T L A L F E R A E A L N V C V R K D K A			
UniRef90_UPI00047CC13B	H Y A C F G V S R A A N T Q A L W R E A Q W R N V T V V E D L D C H D A L A Q M			
UniRef90_Q2LPR8	H G P R N K P E N G K L A K E V G A T T F T I N D V R			
UniRef90_UPI0004789CE7	C D A N D W P F N Y A C L G I N R G S N T Q A L Y Q K A D E L G V L Y F D D T E			
UniRef90_H0DF57	A V V G I S E P G N T A A L F R T A A E L N V R H L L D V D C Q			
UniRef90_W9V2S1	Q I G I R A Q G T A R P E E Y E A A Q A Y G S N I V T A Y E L L H			
UniRef90_B5F066	Q V G L R G I G G G S G R A E F D D A K A W G A K I F T A R H V Q			
UniRef90_E6TRB4	N C I G I Q H A G N M R A L V E T A K N Y N T H I I W A D E L H			
UniRef90_B6ERX6	N T Q S L F D Y A K E K D I I K Y V F S D E L L H			
UniRef90_D9VAH6	H G P R N K P E N G K L A S D V G A V T K T I H D I R			
UniRef90_A1B165	D P P L A E A S D V V A V G D G D H P R R V T L R A P G P E I A P D L R V I D			
UniRef90_UPI0004681538	L A P H D S I S S I Q I G I R T P E K E E I E N L K K H N I K V I T P F D I M			
UniRef90_K2AVQ4	P Q I S K L V Q V G L R D I S H D E V K M I D Q S G I A Y Y D P I I K Q			
UniRef90_UPI0003F91FA2	K I P Q I S K L V Q V G L R D I S H D E V K M I D Q S G I A Y Y D P I I K Q			
UniRef90_D3F9C2	A C L G V A E T A N T Q A L F A R A D D L N V W I V K D E E M T E R E L P S L M			
UniRef90_B2AFX8	D G N V I Q P T K T V V V G A R S I D D D W E K D N V K Y S G L N V F T S E D I K			
UniRef90_B3V5B3	V A G M V Q V G L R S V G S A R L T E I E A A R R Y G S R F V T A R E V H			
UniRef90_K9VX65	N T P A L F G R A E A L G V C Y V E D V D M Q			
UniRef90_C7PCC2	G I Q A N S N T Q Q L F R I A G D L D A Q Y V D A D A F H			
UniRef90_A0ZFA2	UniRef90_R1HE41	K I P Q I S K L V Q V G L R D I S H D E V K M I D Q S G I A Y Y D P I I K Q		
UniRef90_R1HE41	A C L G V A E T A N T Q A L F A R A D D L N V W I V K D E E M T E R E L P S L M			
UniRef90_R5LQ37	D G N V I Q P T K T V V V G A R S I D D D W E K D N V K Y S G L N V F T S E D I K			
UniRef90_L0KM36	V A G M V Q V G L R S V G S A R L T E I E A A R R Y G S R F V T A R E V H			
UniRef90_UPI0002DEC5CC	C L G V S A A S N T K A L F N K A D Q L G V W Y E H D R N M T			
UniRef90_B4UI15	R G G R L V Q V G T R A S G R D R A H W E S T L G V R Q F W A A D V L			
UniRef90_UPI00047BB60D	V I K G E N V Y N I G L H G F F N G Q I Q Y A R E H N V N C L I T L K E A R			
UniRef90_G7ZF88	V A E V F D H R H S V Q L G V P I Y S H T Y M E R A E A A G I I M V R T P W D I R			
UniRef90_UPI0002DDD8E3	C L G V S R A S N T R A L F Q R A A E W Q V L V R E D R E I S			
UniRef90_F9DS79	UniRef90_L8D5T7	N T D I L F D E A D A Q G V S Y V T E Q E I T		
UniRef90_L8D5T7	UniRef90_UPI0003607660	S P R H L I Q F G I R S S G K D K S H W E S T F G I K Q H W A H E I R		
UniRef90_UPI0003607660	UniRef90_S2XTA7	Q V G L R G V G S A R A T D I E A A R H Y G S R F V T A R K V H		
UniRef90_S2XTA7	UniRef90_Q8FQ76	S V L G V S V P N N T D F L F N A A R E F G T E V T T D D E I N		
UniRef90_Q8FQ76	UniRef90_A4CGJ4	I G V R R D A N P Q V L W D R A R E F S V C T I E R E S		
UniRef90_A4CGJ4	UniRef90_Q96TW0	S P P L L T P S R L V Y I G L R D V D G G E K A I L K K H G I		

210 220 230 240

UniRef90_C6PUL0	I S G N N I F D Q L D K L D N F M K D Q E H I Y I T V C S D I V F S S A F A P G V		
UniRef90_R8AV83	E N G I E S V L A A I P D N G R Y Y L T I D A D G L D P A I M P G V		
UniRef90_UPI000467F8EB	R R G I A D V V A E A V E V A G A G D G A R V H L D I D V D C D R A V A P G C		
UniRef90_UPI000360075F	A E G A A R T A Q W A H D Q L T H C A G Y W L H V D V D V L D P A V M P A V		
UniRef90_UPI000344542C	M K S L V P L M G E V R Q Q M G G K P I Y I S F D I D S L D P A Y A P G T		
UniRef90_F4XUG6	K T Y E G I T W A A Q C Q E I I A N L P N K V Y I S F D I D G L N P A Y C P N T		
UniRef90_L7U8T5	R D G I A A G V T R A V E R F R A T G V D G F W M H L D A D V M D D A V M P A V		
UniRef90_UPI00036E22DE	D I G T A A L L K R I P D G G R Y Y L T I D A D G L D P A V M P A V		
UniRef90_A3MWM6	R S E V A D A V A T A S G R V Y I S L L D I D V L D P S E A P G V		
UniRef90_UPI000478B722	L Q G I L R R V V C D A L N E L A Q K A E T I Y V D D L D L D V M D R A F A P A T		
UniRef90_M7MYR5	M R E S Q W E D V R V R L R N W M H D K E A I Y L T I D L D A I A A A H A P G V		
UniRef90_W7X3M5	E M G M R H T M E Q A L G V D E N T H V S F D V F L D P E I A P G V		
UniRef90_L9X0J0	G D D V V E A A D R A L E A V A D A D A V Y V S L D C D V L D A S A A P G V		
UniRef90_UPI0003F4CABF	M H R L T Q L Q E E L Q A F L D E V D A V Y T T I D M D V F A A A Y A P G V		
UniRef90_UPI0004754925	M Q E R H E L T R L T E L A S C I D A A D H V Y L T I D L D A L P A A V M P G V		
UniRef90_A0A24F4L0	R L L K G E T W E Q V C K D I I K E L P Q N V Y I S F D I D G L D P A F C P H T		
UniRef90_K2Q5B0	E D W M S D S I D Q M T E N V F I T I D L D A F D P S I L P S T		
UniRef90_B2APQ0	R Y V F G D V V A W		
UniRef90_J5BV10	A A F E G K A W R I I C D E I I S Q L P D E V Y V T I D I D G L D P K L C P N T		
UniRef90_B7DU35	R R G L N I V L K E A W D E L I R K G V E M V Y V S F D L D V L D P S F A P G V		
UniRef90_UPI00034CF698	E T T D L R A F A D E L Y D Q A S K G V D A V Y L S I C S D V L D Y A F N N P		
UniRef90_UPI00037923AE	R R G P E T V A R A A L R H L Q N S P L D G F W I H L D A D V L D R S V M P A V		
UniRef90_S7U616	E R G I P D P L L P P D F P E D I Y V T F D V D G L D P S I M P A T		
UniRef90_E1QNL7	R S M D Y H E L R R L L I R G V I D S Y P G P I H L S I D V D V L D P S I M P G V		
UniRef90_K0B929	D G K G P Q L L K D H V I S T F D M I Y S S F D L D V L D P A F A P G V		
UniRef90_S9SET4	K L G I E Q V A D D L S N F V L Q A E V E G V W L H L D A D I D A A I M P C V		
UniRef90_Q7WJ55	E A H L G E R L A Q L D A L L A A A G H V Y L T I D L D V L P A A T A P G V		
UniRef90_S6GN28	P H N I Q T I T L P D D F P K V K F F T L D I D G L D P A V F P S T		
UniRef90_T0STR5	R K Y K G E N F A K I A K E L V K N L P K N V Y I S F D I D G L D P R Y C P N T		
UniRef90_D5CGJ9	R E A L P A L E Q V L A Q A D R V Y Y L T I D L D V L P A A E E M P A V		
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UniRef90_UPI000365B6FC	A K N P H W I E N A I A S P T R K I F I T I D L D G L D S S V I P G V		
UniRef90_A0A24PL52	K A K D L I A E L A K K A Y D I A S K G T E A V Y L S I C S D V L D F A F N P		
UniRef90_UPI0001D5503E	M K S L V P L M A E V R Q Q M G G K P I Y I S F D I D A L D P A Y A P G T		
UniRef90_UPI00035E7A99	T R S L A E L D A Q L R L R L E D V T D V Y Y L T I D L D V L D P G E K A P G V		
UniRef90_I3U8X4	E S Q L P Q I R Q F V V A A Q L Q E V S H L Y L T I D M D V L D P A W Q A P G V		
UniRef90_UPI0003FD5649	Q L F E G N T W Q H L C D H L I Y S L P Q K V C I S F D I D G M S R L Y A P N T		
UniRef90_T0PH04	D K D V W S V L G E L D D F I Q S Q D Y I Y I T V C A D V F S S A F A P G V		
UniRef90_B9JWH4	A R G I E A V L Q H I P E G A Q T I I T L D C D G L D P S V M P G V		
UniRef90_T0RV53	K H G L P A L A F D G P L Y I S I D L D L D P A F A P G V		
UniRef90_E8WRM3	E R G M P E V T E E A I A I A R E K T R H V F V T I C S D C I D A G Y N P G		
UniRef90_UPI00031D10F7	D G G M E A V L A R I P D G G Q Y Y I T I D A D G L D P S I M P A V		
UniRef90_S5TFW6	P Q A I Q S I Q L P D A F P E K V F F T V D I D G L D P S V F P S T		
UniRef90_UPI0003B54083	R V G L P E L P L P E D F P K N I Y I T F D V D G L D S S I M P A T		
UniRef90_C7DGT1	K D M H G M T A K Q I A A R I C L R S Q K D S S L Y L S I C L D V F D P A E M P S V		
UniRef90_UPI00036BE168	L A S S N T D Y I E T C L R S Q K D S S L Y L S I C L D V F D P A E M P S V		
UniRef90_D4XC86	E R H L A A R L A N V D A L L A R A R H V Y Y L T I D L D V L P A A V M P G V		
UniRef90_UPI00047E3925	E V K S N P I E A A R R A T Q W A R S F D T I L V H L D I D V L D F A D F P L A		
UniRef90_UPI0003768AD2	K L G Y K K V C D K V D Q F L Q D K D Y Y L Y L T I D M D C F S V G H A P G V		
UniRef90_UPI000381F0D5	R R G P E A I A A E V R E V V G T R P V H L S F D M D Y F D P S A A P G V		
UniRef90_V9DJL5	R N P V K E A K A A L E W M E D K V D Y I L V H L D V D V I L D P G L C P L G		
UniRef90_S2KNH3	P T N L D M I K R D L D A F I A D C D H L Y L T I D L D V L P A A E A P G V		
UniRef90_K9PSD4	R L Y S G S T W I N L C R E I I S H L P E V Y Y I S F D V D G L D P K L C P N T		
UniRef90_G5JHH1	H H V S P P I K D M I E R F H D H D V I M L T I C M D V V D S A F A P G V		
UniRef90_K2C7D0	Q G L Q D K C I D F V D R I I D E N D M V Y A S L S L D F S P A F A P G V		
UniRef90_R7ZDU1	L T A Q S K P Q I I H D L Q Q F M D G H D Y I L L T I C M D V L N A A V I A P G V		
UniRef90_D9TBH1	A D A R A A A R R A S V A E G A A E R F V V H F D V D V L S F V D A P L A		
UniRef90_Q8END5	A K K A Y E I L A S E G T E A V Y L S I C S D V L D F A F N P		
UniRef90_UPI00047CC13B	R D P S G E S E R L L E T W G H D L D H L L V H F D V D V L N F L D T P		
UniRef90_Q2LPR8	E R G M T S V I D E A L R I A S N Q T E H V Y Y V T I C S D C I D A S F N P G		
UniRef90_UPI0004789CE7	E L G H E Q A L R R S F A V D R T P E I P F W L H L D I I L D Q A V M P A V		
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UniRef90_W9V2S1	L T I L L D L P S A R A Q L A S F M E A C D L I Y L T I D L D V F P A A V A P G V		
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UniRef90_E6TRB4	Y S S D L R E L T K K A Y N I A A T N T D I V Y Y L S I C S D V L D H A F N P		
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UniRef90_UPI0004681538	H H G I A S V L E A I E G G E C L I T I D C D G L D P S V V P G V		
UniRef90_K2AVQ4	L G Q L E K C T D F I D R I I A I E G G E C L I T I D C D G L D P S V A S V A P G V		
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UniRef90_B2AFX8	E R H L A A R L A E L S A R I D A A D H V Y Y L T I D L D V L P G A V M P G V		
UniRef90_B3V5B3	E K G V K K V V S E Y I L S T L G E H T Y I S F D M D C I D P A Y A P G V		
UniRef90_K9VX65	K L Y A G I S W L E L C K Q M V A E L P Q Q V Y Y I S F D V D G L D P K L C P N T		
UniRef90_C7PCC2	L Q D K A L L H A A I G Q F L R D V D H V Y Y L T I D L D V F S A A F A P G V		
UniRef90_A0ZFA2	K L Y A G S T W I D I C Q E I I S H L P E V Y Y L S I F D V D G L D P K L C P S T		
UniRef90_R1HE41	R G L N A F I A E P D G G R Y Y I T V D A D G V D P S V V P G V		
UniRef90_R5LQ37	Q K G L E T V I N E A F S I A N E R T K G V H I S F D L G L L D P S I A P G V		
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UniRef90_UPI00047BB60D	K R G I T E T V E E A L K Q L E K K A D I Y Y T I D M D V L D I G F A P P G V		
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UniRef90_L8D5T7	S K G A A V I A D E V I A Q L K A D K V D E L Y V S F D I D A L D A Q F A S A T		
UniRef90_UPI0003607660	A E G V K A A L Q H I P E R A Q V V V T L D C D S I D P S I A P G V		
UniRef90_S2XTA7	G Q I G P P V K D K I D H F I N A H D V I L F T I C M D V V D S A F A P P G V		
UniRef90_Q8FQ76	A M S P Q E A A D H A L A L V R D A E H I H L T V D I D V L S E A L A P G T		
UniRef90_A4CGJ4	L T P D Q L S G H C R T L R K F L K P L D A V Y L T I D L D G F S S A Y A P G V		
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250 260 270 280

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UniRef90_R8AV83	A G P A L G G L	T Y I Q M R K L I H G L	V K K G R V V V G M D I	V E I C P S L D V	
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UniRef90_UPI000360075F	D A P D P G G I	A F A E L E S L L A G L	D T P H C L G V I E L	T V F D P D Y D P	
UniRef90_UPI000344542C	G T P E I A G L	T P S Q A L E I I R G	C Q G L N V V G C D L	V E V S P P Y D P	
UniRef90_F4XUG6	G T P V P G G L	E F N E A I Y L V R S	L V K A G K I I G F D L	C E V A P P G D	
UniRef90_L7U8T5	D S R Q P D G L	R V D E L L G E L V A R	L V E S G G M A V G M D	V T I Y D P S L D P	
UniRef90_UPI00036E22DE	E G P P Q P G G I	S Y R Q T I E L I Q G L	V G K G R L V G M D I	V E I A P A R D V	
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UniRef90_M7MYR5	S A P T P F G L	L D P W V R V R L I L Q E	V Q S G K L L S L D I	D A E L S P A L D Q	
UniRef90_W7X3M5	G T T I P G G P T	Y R E A Q L C M E M I	A D T G R L S L D V	M E L N P A L D V	
UniRef90_L9X0J0	S A P T P G G L	L T T R E L F R L L R V	L A S D D R V A G F E	V V E C A P P L D R	
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UniRef90_UPI0004754925	S A P A A Y G V P	L P V V E E V A L L V	R V R S G K L R V A D	L A E Y N P Q Y D R	
UniRef90_A0A024F4L0	G T P V P G G L	S V D Q V F F L F R E	V H A S G K I V A F D L	N E V S	
UniRef90_K2Q5B0	G T P E P G G L	L W F E T L E Y L K K V	F K K K N V V G F D I	V E L C P	
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UniRef90_B7DU35	P A P A P G G L	S F L E C A A E L E	W L G Q Q A Q V V M L D M V C A D P T R D V		
UniRef90_UPI00034CF698	G G P V D G G G L	T S Y E L L T L L I H E	F A K R G V G M D F V E V Y P Q Q D P		
UniRef90_UPI00037923AE	D S P D P G G L	F A D E L L R A L L S P	L A A S P R C V G V T V A I Y D P D R D P		
UniRef90_S7U616	G T P V P G G L	T W R E A I L A L E R A	C T G R R L V V G C D V V E L A P P R		
UniRef90_E1QNL7	G N P E G F G L	N Y G E L L R I I K A V L D Y G R	V K A V D L V E Y S P P N D P		
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UniRef90_TOSTR5	G T P V P G G I	E Y M E L I G L V Q E	V V N S G K G V F G D L V E V A P P G K T		
UniRef90_D5CGJ9	S A P A A L G V	P A R D L L P A I E R I	C R S G K L Q A A D L V E F N P H Y D R		
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UniRef90_UPI000365B6FC	G T P Q P G G L	L D W Y A L L T G F L	R R L F Q D Y E V I G C D V M E L A P I P P		
UniRef90_A0A024PL52	G G P V D G G G L	T S F E L L E L V H E	F A K L G Q R G M D Y V E V Y P Q Q D T		
UniRef90_UPI0001D5503E	G T P E I A G L	T P G Q			
UniRef90_UPI00035E7A99	S A P A A F G M A	L E K V E K L V S S I R A S G K	L I A A D I A E C N P V Y D R		
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UniRef90_B9JWH4	A A R T P G G G L	T T Y N Q V I D L I A G I G K R G R I	A G F D L V E L Y P P A D I		
UniRef90_T0RV53	S H Y E P G G L	S T R D R L L S L Q D V Q A P T V V G A D I	V E L N V A R D I		
UniRef90_E8WRM3	G P A D F N G L	L L P N E L L P A L Q R I G A S G	I D G L D Y V E V Y P G Q D P		
UniRef90_UPI00031D10F7	E G P A P G G G L	L T F H Q V R K L I H G L V A K G R	V L G M D I V E I T P S S D V		
UniRef90_S5TWF6	G T P V P G G G L	G W Y Q T L N L F E S V A R H R Q I	I G F D I M E F S P L		
UniRef90_UPI0003B54083	G T P S P G G G L	N W R E A Q Y M L E R C V A G R R	V V G L D V E L A P I E G L		
UniRef90_C7DGT1	G T P E P D G M H	F H D F M E V V G S V F P G K T I	I G M D F T E L C P		
UniRef90_UPI00036BE168	S S Q Q P L G	I Y P E Y V I Q S M M K K I K E I N P A M A L D I	V E L N P L K D K		
UniRef90_D4XC86	S A P A P Y G V P	M A V V E E I A L R V K A S G K	L R V A D M A E Y S P R F D V		
UniRef90_UPI00047E3925	E N T R R G G L	T L L E E L S A A L F E L R A L P N R R V L T	V T E V N P D H A P		
UniRef90_UPI0003768AD2	S A I Q S L G	D P Q L A L L V L V Q H I A A S G K	L V G F D L V E V S P P H D I		
UniRef90_UPI000381F0D5	A T P T W G G P P	V A E V F D L L H G L K G L D	A T L S P P H D V		
UniRef90_V9DJL5	N V P N W T G L	S F E A T M A A F K T F L S S D K I	V G L S I A E V N P D H D P		
UniRef90_S2KNH3	S A P A A H G V S	L P L I E N L I R W I R D R G K L	R V A D I A E L N P N F D I		
UniRef90_K9PSD4	G T P V P G G L	E L E Q A F C L F R E L I I N S D K I	I G F D V C E V G		
UniRef90_G5JHH1	S A P A V L G L	Y P H I V F E L A K R I V P S D K V	T S I S I A E M N P T Y D T		
UniRef90_K2C7D0	S T I Q P L G L	Y P W H L I P L L R Q L A A S G K	M V S Y D I A E H V P R Y D I		
UniRef90_R7ZDU1	S A P S P F G G L	D P T F V R T L I Q Q V T S H P N T H S F D I	C E V N P P L L D E		
UniRef90_D9TBH1	D V P E P F G G L	S L G E A A A T L A E V A S P R F A G L S	T E I N P D H L P		
UniRef90_Q8END5	G G P V D G G G L	T S Y E L L E L I L E F S Q M G	I N G M D Y V E V Y P Q Q D A		
UniRef90_UPI00047CC13B	D T T A S R G L	T L H Q A T R V L E V L I A D S R F	F S G L T I T E V N P T H G A		
UniRef90_Q2LPR8	G P A D F N G L	F P H E L L F S A L Y T I G R A G	I S G L D Y V E V Y P I Q D P		
UniRef90_UPI0004789CE7	D S P G S P G L	D Y G G L A A L L R G F L A S P R C I G	G L N V T I Y D P D L D P		
UniRef90_H0DF57	G P V D N N G L	L S S F E L L T L L I H E F G K L G	I C G M D Y V E V Y P M N D		
UniRef90_W9V2S1	S A P A P R G V S	L E V I E S L I D E I K A T G K L	I A V A D I A E Y N P T Y D I		
UniRef90_B5F066	S A P A A L G V P L I I Q V L R L I E P V	C R S G K L Q A A D L V E F N P R F D D			
UniRef90_E6TRB4	G G P V D G G G L	T A H E L L T I I Y E I C K Q G Q	I G M D F V E V Y P H Q D N		
UniRef90_B6ERX6	S A P A V R G L	P F E I I E S L V D I L G R S K L	R L R A E L A E Y N P N F D I		
UniRef90_D9VAH6	S A P A S L G V	P A A V V L E V C R L V A S D P K L	V L R A D L T E L N P V Y D V		
UniRef90_A1B165	A G P A F G G V	T Y C Q M R E L L H G L V R K G R	V V G M D I V E I T P S K D V V		
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UniRef90_K2AVQ4	S A P Q P L G L	R S V E A T Y I L K K I V E N G	M V A M D L M E V C P P F D I		
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UniRef90_D3F9C2	S S P P V A T G L	L S W D Q V A E L L A P A L R S P R L	I G M T V C G Y N P D L D A R		
UniRef90_B2AFX8	S A P A A Y G V P	L P V V E E V G L V R S R G K	R V A D A E Y N P Q Y D R		
UniRef90_B3V5B3	S V P V P L G L	R S V E A T Y I L K K I V E N G	M V A M D L M E V C P P F D I		
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UniRef90_R1HE41	S A P A A H G V V L S L I E P L I A E I R A S G K	R L R A D L A E L N P S L D R			
UniRef90_R5LQ37	S I P E F D G V S	E E E V M M N I N K L I I A H M K I	T S Y D L V E F N P L R D E		
UniRef90_L0KM36	A A R T P G G G L	T Y T Q V I D L I A G L G K R A R I	A G F D L V E L Y P P A D I		
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UniRef90_B4UI15	G T P E P G G L	T P A F V S A L V R R L G S E V G L	Y A G G D V M E V A P G I A G		
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UniRef90_UPI0002DDD8E3	S A P A A R G V S	L A L L E P L I R E L D S G K L R L A D L A E L N P E H D I			
UniRef90_F9DS79	S A P S P F G G L	D P L I V R T F I Q T I A S H K K T I	I S F D I S E I I N P A L D H		
UniRef90_L8D5T7	G T P E A G G M T P	E P E E A M T I L Q K L H M H F P I T G	G D M M E I A P F T D S		
UniRef90_UPI0003607660	A A R T P G G G L	T Y T E V I D L I A G L G R R A R I	V G F D L V E L Y P P A D I		
UniRef90_S2XTA7	S A A A V L G L	T P Y T V L D L A R R I L E S P K V	T S V S I A E T N P K Y D V		
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UniRef90_A4CGJ4	S A A S P M G Y A P M E I A P L D V V L N S G K L I G L D I A E L N P A H D Q				
UniRef90_Q96TW0	S A A A V L G L	T P Y T V L D L A R R I L E S P K V	T S V S I A E T N P K Y D V		

290

300

310

D N N T A N L A A V I I F S V V T A L
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 E D A R T V R L A A L C V L E L L A G L A A R
 D G S Y A A E I V N T I L V
 F G N T A L V A A N L L F E M L C A L
 S G D E W D G N V G A R V L Y K L A C L T R Y R
 E R H A A R A A L V D T I L V R G L G A L
 N E I T S M T A G H I I L N V I G A A
 S D I T A A K V V R I L L M H I
 N T I T S L T A A S C I L S F A S G L L
 D G R T A K L A A Q L V F A L L
 R N R T A E L A V D L I E S F G K S
 D G
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 D H Q G A R V A A R L A W R L L

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UniRef90_U9WEI6	H P D A W R Q G I Y M L P V P G W L L A E N R R L R P D A I A I H W V R S Q T		
UniRef90_W5VYJ4	A G E L T A P R Y D V S G W Q P G D G V R Q A A A I N A Y S Q Q L A Q R L		
UniRef90_A0A010QU39	L P V H E V Q V E P V D D H E G E I G R S F E V I R R T A N L V		
UniRef90_U1NEU4	F D D Y D R R T D L H F S A C D V I D E G D V R A W N D T T E Y L E W L N G E L		
UniRef90_G8QX93	M G E P G T F G I H T Y D A V S C S Y E K S P E E V F A R A S V L M		
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UniRef90_UPI00041EEE76	G D A G W K K G F F M K E I D K K L L K G D Y L R K E A E L Y N N W V Y E Q S		
UniRef90_E0DFH2	D R V R A D A H T I T Y T N T S D L E A G Q Q Q L S D T V		
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UniRef90_L0IFS6	W T L R A G P G E G L A G V V D H G D L L V D P R T D T G V T A H E R L R A L V		
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UniRef90_U1QRH1 A E Y H R D G V V P L V V G G E H T V T V G A V R A L D P D V Y V C L D

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UniRef90_C9P579 A D G L Q H S P M I V V L G G G H E V A W A S F Q G L G K H T P K I A I I N F D

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130 140 150 160

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UniRef90_UPI00039E28EA	A H A D L R P E Y E G D P L S H A C V M H R A V A D L G L P		
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UniRef90_C6JKS4	A H L D I R P Y E N G A N S G T S F K Q I L D I D K N V K Y S I V G F K K Q G N		
UniRef90_M0DGQ5	A H L D L R D E Y D G N E W S H A T V T R R V L D E		
UniRef90_Q13PQ0	A H F D L R Q K R P A N S G T P F D Q I A L D C A E R G V P F N Y A C F G S		
UniRef90_UPI00041EEB47	A H C D L R K N Y E N F T Y S H A S V M Y N A L E E L P		
UniRef90_T0P5A0	A H F D I R K P E Q E A T S G T G F Y Q A Q Q E E K I N Y P G		
UniRef90_R5W5311	A H C D L R D A Y E G F E F S H A S I M F N V		
UniRef90_C9P579	A H F D L R S F S S E K V S K P S S S G T P F M Q I A D H C Q Q G W D F H Y A		
UniRef90_X1KRL2	A H R D L R D E Y L G D K C H A T V M R R V L		
UniRef90_Q1EQG5	G S A D F R T G N S G G V G G A A G G E E L A I A T G R G Q D D L T D I E G		
UniRef90_UPI0002D97EA0	A H F D L R T P S G D A V T G S S G T P F S Q I A D W C Q T R Q W P F		
UniRef90_T0SUC0	A H T D L L H T R L G D L C F G S W L T H V L D G L D		
UniRef90_V4XZL5	A H L D L R D A Y D G T P W S H A C V T R R A L D D L		
UniRef90_U7GM78	A H I D D W R D E V D G E R Y G Y S S P M R R I S E		
UniRef90_A7H746	A H T D L L P E R L G I R T C F A T W S Y H A N D L L G		
UniRef90_S7X468	A H A D L R E S Y E G S A C N H A C A		
UniRef90_UPI000255AA26	A H L D I R P A P Q G S S G T P F Y Q I A E Q C D L N G R P F N Y L C		
UniRef90_U9WE16	A H G D L R N A Y E G F Q E S H A S I M F N A M Q L P Q I		
UniRef90_W5VYJ4	G H S D F R H P G N S T L G S A G E D L A L A T G R G Q A D V A C R L F		
UniRef90_A0A010QU39	A H D D F N T P D T V M S G Y F D S M P I A M L A G Q C W K G L L G T V P		
UniRef90_U1NEU4	A H L D L R Q T Y D G N T D S H A T V T H H I T E M D T		
UniRef90_G8QX93	A H M D L R S S Y E G S V F S H A S V M Y R A V E A G I P		
UniRef90_UPI0004210EFA	A H F D L R T P A P N T S S G T P F Y Q I A Q H C E A E R Q S F H Y		
UniRef90_G2MLT6	A H L D L R D E Y D G N P W S H A S V C R R A L D G D P E G A A L G S V D G		
UniRef90_Q2WG92	A H S D F R D S Y M G N K L N H A C V T K R A L E		
UniRef90_UPI00041EEE76	A H C D L R E K Y E D F T Y S H A S I M Y N A L K E P E		
UniRef90_E0DFH2	A H F D L R T S D I A T S G T P F K Q I A D A W P H D F H Y T		
UniRef90_M9W1J8	A H L D L R I A E Q A S S G T P F R Q L A L E C D A Q Q R G F		
UniRef90_UPI00046AF66C	A H F D L R H A A Q S S S G T P F R Q I A E Y C Q A A D		
UniRef90_UPI00041DBF02	A H L D I R A A N A P T S G T P F R Q I A E H L Q A F N Q P F		
UniRef90_L0IFS6	A H L D L R E A Y D G N R L S H A C V T R R I L D A E D		
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UniRef90_C7P3P5	A H L D L R E E Y A G N S L S H A T V T R H A L A V		
UniRef90_Q5L086	A H F D L R P Y D D G P T S G T M F R Q I L D Q D D Q V S Y F C		
UniRef90_UPI0003669DB8	A H H D L R D G N S N G S P V W R L I Q A G		
UniRef90_UPI0003AA289B	A H I D D W R D E V L G E R Y G Y S N P M R R A S E M A H		
UniRef90_D8JA78	A H L D L R S E Y D G D E W S H A C I T R R V L E		
UniRef90_A0A023NVN3	A H M D A N T P D T S P S G C F H G M P V T A I M G F A P E P M R R L		
UniRef90_M0CNJ6	A H L D L R E S Y A G D P L S H A T V T R H A L E V		
UniRef90_M1Z959	A H T D R Y E N N L G N R S H Y A G N H G T F L H I A H E E G L I R N T S		
UniRef90_F7VM6	F Y T D T W N P D V L G G N S H Y A G N H G T F L H I A H E E G L I R N T S		
UniRef90_K6ZEJ2	A H F D L R N P A Q K T S S G T P F R Q I A E F C K T N S Q P F H Y A C L		
UniRef90_Q2SEP7	A H F D L R S D S E G A S S G T P F Q Q A K Y C K T A G		
UniRef90_W9G9Y3	H L D T W D T Y F G A P T H G T P F R R A S E E G L I D K T S S S M H V G I		
UniRef90_A0A023VAC8	A H L D L R H A E Q A T S G T P F R Q A H C D E Q Q R G F H Y A C		
UniRef90_M5QNM0	A H F D L R H A G Q S S S G T P F R Q I A E F C Q R A D M P F T Y C C		
UniRef90_A3UKG9	A H L D L R P S E A G G S S G T P F A Q I R D D P E A F D Y		
UniRef90_UPI00037008AD	T H L D V R D P A E L G P A N G T P R Q L D G G V K G R D V Y N G L		

170 180 190 200

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UniRef90_UPI0002ED291B	A D I R L S P Q D I Y Y V A V R D L M L P E A E L I K A E G I D L N S P E V I D		
UniRef90_UPI00047857A7	L L G R S F V E F G I Q F N S P H Y Y R W V R E Q G A T V M T L T S V G		
UniRef90_UPI00039E28EA	L A Q F A V R D M S R E E A E V R K R Y N I T H Y D A Y F L A		
UniRef90_H1Z4P1	P Y L K E E H V Y C V G N R E Y D D D Y E K P I L E S N V H Y Y P L Y K L R		
UniRef90_B6XEG0	D H G N T K V L F D T A D R L G S H Y I R D K A L T		
UniRef90_E6WKH3	I Q L C E R H F N F P A S G K F K H D N D L I H L S A R E V L		
UniRef90_S3DDL4		S G F M R I T A D D I D	
UniRef90_UPI00039BB12C	P E L V L S P D D I Y Y V A V R D L M L N E A E L I D E L D I S N Y D M E A I D		
UniRef90_UPI000477CDB4	R R P L L S P E R L C F F G Y G D P E E D R E G L V P S T R F P A S D V R		
UniRef90_17BMT1	S I A E A I V L G A R T G S E A E W E R A A D D V T V V P P E E V S		
UniRef90_M0A7C7	S V D E L F V L G A R G S E A E W N R A E A A D V T V V P P E E D V A		
UniRef90_U1JNB2	A P H H L I Q F G I R S S G K D K S H W E S T F G V K Q H W A H E I R		
UniRef90_A6X7J4	T G S K L V Q V G L R D C I D E V E T I K G S N V A Y Y D P I I K Q		
UniRef90_D4TJI0	V F I I G T R S G T F E E Y G L V R D S R I S T Y S P E D I A		
UniRef90_E1RDQ4	S K D S I Q P E N I V Y C G I R S L E K A E Q D V I L N S K N I C V F S V E S L Q		
UniRef90_N2BRD5	V L A G E R F T E I G L H S N L N T W E D I D F L H Q Q Q A R L V P L A H		
UniRef90_W8EX81	D Q G Q V D P T R S M Q I G L H P R S L D W L Q P S Y D Y G Y N I V T M R E F R		
UniRef90_UPI000370FBF8	Q I A Q D E N W Q S L H I G I Q R N S N T L K L F D D A H G M K Y I L S E E L F		
UniRef90_D0CV76	R G S V Y G A S D L F D D K A F G F A T T R S E E I Q		
UniRef90_UPI00037C3785	R Y A C L G V S R A A N T R A L F R R A N E L L G V L F R E D R D I T		
UniRef90_K9ZQS2	G V A K H S N T K V L G E T A D R L N C T Y I F D H E L Q		
UniRef90_L8J515	S K L V Q V G L R D C Q D E V D I N D S N I A Y Y D H A I K Q		
UniRef90_E3BCN8	C L G L N R A G N T Q A L Y E K A D R L L G V Y Y K D D T E L T		
UniRef90_C7NP17	C L G V S R A S N T E A L F N K A D E L L G V W Y V E D K D L A		
UniRef90_Q1LD69	A D R A V I L G A R A G S E A E W E R A D E A D V T V V P P G E V S		
UniRef90_H1HV11	T G L G N T A S L F A H A Q A L G V R Y V E D T E M Q		
UniRef90_U1QRH1	D P N M D P S K I V H I G R G P R N H Q F N N A Q K F G A N V I L G R E V K		
UniRef90_Q8YUM9	R A V V L I G T R S G S E P E W E S V G A R D D V T V V P P A D V I G		
UniRef90_UPI000475D68E	S K L V Q V G L R D C S H D E V R M I E E S H V A Y Y D P M I K Q		
UniRef90_Q9YFC5	S V L G I S A P N N T R V L F D T A R E L G V E V V T D D A V E		
UniRef90_UPI0003673310	F V D P R D V I L L G V R A A T P S Q L D F A E K A G I T V L		
UniRef90_UPI0002DBEEE9	L R P Y V R D E D V I L L G V R D D D E D L P E L D G S G I A Y A P G S D I D		
UniRef90_A6UK41	R S P L V R P E D A V A F A Y R D H K D Q E E Y G S Q P L E L K A I D L P A V R		
UniRef90_Q6LQ58	C L G L N R G S N T Q A L Y E K A D R L L G V Y R D D T E L T		
UniRef90_W5B3X0	A R R L L Q V V G L R S I T K E G R E Q G K R F G V E Q Y E M R T F S		
UniRef90_A4W8B2	G V S R A G N T Q A L W D E A G R L N V T L V E D L H F R R D A L S T L D A V		
UniRef90_UPI0004744AC4	V D P H R S T Q I G I R P N T P G S R N T S E L G Y R I I G M D E Y E F		
UniRef90_F8DK41	G I Q E H N N N L F L F N Y V A K T P S I D F L T G Q D L F		
UniRef90_E8LP63	C L G V S R A S N T E A L F K R A D D L G V W Y V E D K D		
UniRef90_UPI000364B999	Q V G A R S I G S A H T D D Y K D A L T W G V K F F T G P D V H		
UniRef90_C6JKS4	T K R L I D T A K S Y N V L L I D E E N D E K F L N D E L K Y L V D		
UniRef90_M0DGQ5	L G A E E A I V L G A R T G S P E E W D R A D A D D V T V V A P E D A A		
UniRef90_Q13PQ0	D L S N T A S L F A H A E R L G V H Y V F D V D M Q		
UniRef90_UPI00041EEB47	Q I S K L V Q V G I R D Y C E E E W Q Y I C N S Q V T Y F D R A I K E		
UniRef90_T0P5A0	Q K I S N T Q A L F D A V K D Y Q I N W I E A Q H F H		
UniRef90_R5W311	L R D V P Q V T K I A Q V A V R D F S E S E A A L A A S S G R I F D D L S L A A N		
UniRef90_C9P579	C L G V S R A N N T T A L F Q R A D E L G V W Y V D D K T L N		
UniRef90_X1KRL2	D F L P P E R I L V Q V V G V R S C S K E E A E F A R E A K I L A Y S S E Q V		
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UniRef90_UPI0002D97EA0	L Y A C L G V S R S S N T Q A L F N K A D T L N V L K V E D T D I A		
UniRef90_T0SUC0	S S K D C Y Q F G R S S G K S K E Y W E K E F G L N Q Y W T K E V K		
UniRef90_V4XLZ5	V D R V V V I V G A R A G S A A E W E R A A A D D V T V V T P E D A R		
UniRef90_U7GM78	M P H V A G L V Q V V G L R A V G S A G N E I E A A Q T Y G S R F V T A R E V H		
UniRef90_A7H746	R G G R L V Q V V G T R A S G H D R A H W E S T L G V R Q F W A E E V		
UniRef90_S7X468	V Y E A S Q T T N L I Q V V G R S M D I I E K T V M D E E K T Y F A H E M A V D		
UniRef90_UPI000255AA26	V G A A A T A N T P A L Y Q R A E E L G A Q V I S D R E I V		
UniRef90_U9WEI6	S K L V Q V G I R D S H G E M A L I D Q S D V T Y L D T Q L K Q		
UniRef90_W5VYJ4	E D A D V V V V L G I R E E D E D R A E L S G L G I A H R T A A A G I R		
UniRef90_A0A010QU39	G H E A M D L E R L V H V G M R D V N D L E R A R V V E A G F D V I W G S T E K		
UniRef90_U1NEU4	E E V I I I G A R A G S E A E W E R A T A P D V T I V S P A D I T		
UniRef90_G8QX93	L F G V Q G I R N Y S S E D L A A R N E Y V G F Y D A S E L Y		
UniRef90_UPI0004210EFA	T C L G I A K T A N T Q A L F A R A E Q T G T R Y V L D T E C T F S R M S E T V		
UniRef90_G2MLT6	I L G P N R I T S I G T R S V S V L E E Y Q D P D F E K V E F I P S F S V R		
UniRef90_Q2WG92	S K L V Q V G I R D Y C E Q W E Y I C N S N F R V I T Y F D K N		
UniRef90_UPI00041EEE76	V L G I L S E P N N T R I L F Q T A D Q L G V T Y V T D D A L A		
UniRef90_E0DFH2	H Y T C I G A S R A A N T Q A L W D E A A R R E V R V V E D L D V L Q		
UniRef90_M9W1J8	P F N Y Y C L G V S E L S N T Q A L F D Q A R Q L K V R Y L L D R Q		
UniRef90_UPI00046AF66C	H Y C C I G V S R L S N T A A L F D R A D D L G V Q I I S D E D C N		
UniRef90_UPI00041DBF02	H Y C C I G V S R L S N T A A L F D R A D D L G V Q I I S D E D C N		
UniRef90_L0IFS6	I D V E E A I I I L G A R T G S E A E W E R A A A D D V T V V P P E S V G		
UniRef90_UPI0002DC35E4	V L G I Q K N G N T K A L F E R A D D E Y G V R Y I L E D E L L R		
UniRef90_UPI000360C148	V D T R L D L A A S P R E E R V S Y L T A D E T R		
UniRef90_C7P3P5	A D R A I V L G A R S G C R S E W E R A S E A D V T V V E P D A V A		
UniRef90_Q5L086	A A N T Q A L W D E A A R R E V R V V E D L D V L Q		
UniRef90_UPI0003669DB8	L P G K N I V Q I G I S D F S K E Y S T R A K E A G I F V I T R A Q L R		
UniRef90_UPI0003AA289B	V T G I I V Q V G I R S V G S A R L A E I E A A Q R Y G S H L V T A R		
UniRef90_D8JA78	T A E E A I I V V G A R T G S E E E W E R A A E G D V T V V A P E D A S		
UniRef90_UPI00041DBF02	L G A P I A P E R F R Y Y G V R V A D S G D E A F G T A H G L R M L E A D H A F		
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UniRef90_M1Z959	V I N N E K F H Q L Y Q M G R E F E W I S N Q V D K D S R I F V F T T Y H L Q		
UniRef90_K6ZEJ2	I H A G L R A P I N K R S D R I N D K R C G F S V I T A R D I D		
UniRef90_Q2SEP7	G V A E S S N T T A L F N Y A K Q T N T R Y L D D		
UniRef90_W9G9Y3	K P F H Y A V F G I S E Y A N T Q A L F D R A D K L G V T Y L K D T H		
UniRef90_A0A023VAC8	R G P L Y S T E D L S D D Q V L G F Q V I G H D M D D L G W R		
UniRef90_M5QNM0	G V S Q L N N T A A L F E Q A E Q L K V R Y R L D R Q M N S W D I S A C E A L I		
UniRef90_A3UKG9	L C V G Y A E E S N T Q A L L K R A Q E W G V K L V R D H		
UniRef90_UPI00037008AD	H G F F N A R P L V D Y A K K H E I N M V T L K Q A R		

210 220 230 240

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UniRef90_UPI00039E28EA	R V D L P E Q P L P E F D F P R I Y I S F D V D G L D S S L M P A T		
UniRef90_H1Z4P1	K E T V P T V V H H F L S I V D Q E E L D G F F I H L D V D V L H D T I I M P A V		
UniRef90_B6XEG0	P S L L P H A I E K I K Q F I N S V D F L Y V T V D L D V F S A G I A P G V		
UniRef90_E6WKH3	K I G P E E T V R R A L E R V K N A D H L F L S F D I D S V D P A Y A P G A		
UniRef90_S3DDL4	E I G T Q G I I E A I I K R I G T T P V Y L S F D I D V L D P S V C P G T		
UniRef90_UPI00039BB12C	N L G F N T V L D Q L M T E L N G K Y D R F F V S F D Y D C L D G A L F R A C C		
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UniRef90_M0A7C7	D D W D P G D R F E D R D V D Y L S V D I D A A D P G Y A P G T		
UniRef90_U1JNB2	E Q G T S A I V E Q V I A Q L K A D N V D E L Y V S F D I D A L D E E F A S A T		
UniRef90_A6X7J4	D H G V E P V L D M I P D G G R Y Y I I T V D L D A F E P G G A P G V		
UniRef90_D4TJI0	Q Q Y A G K T W N D L C E E I V A N L P H H V Y I S F D V D G L D P K L C P H T		
UniRef90_E1RDQ4	A R G L D A V L D E I Q E K T S G K R T Y L S I D A D A I D C C L T P G L		
UniRef90_N2BRD5	K G R A D C I E K M K E V L T Q S T K I Y V S F D M D S C A E A Y A P A V		
UniRef90_W8EX81	V Q Q D G M P E Y M T R A L R H A T A A G P A F V S F D M D S C A E A Y A P A V		
UniRef90_UPI000370FBF8	H R P A A W Q A L L E R L A G L D G P V W L T V D M D V F S P A E V P G V		
UniRef90_D0CV76	Q R G L A D V V A Q T R E V L G D R P V Y I T F D L D C L D P T I A P G V		
UniRef90_UPI00037C3785	F E N L P K V Y T E I N E L I D S V E V L Y L T I C M D V F N A S I A P G V		
UniRef90_W9GCZ7	Q V G I L G V I E A L Q A R T A G R P V Y L S V D I D V L D P A F A P G T		
UniRef90_E1VCK6	H T E L D G V Q R D L E R F I I A R C D R L Y L T I D L L D V L P A S E A P G V		
UniRef90_N9RT22	Q Q N V E N L L E K I T A F I G K V D Y L Y I T V D L D V F S A S I A P G V		
UniRef90_K9ZQS2	K L Y S G N T W I D I C R E I I N H L P E N V Y I S F D V D G L D P K L C P N T		
UniRef90_L8J515	Y A N L A N T I D A L K T F L E G C D H L Y L T I D I D V F P A A V A P G V		
UniRef90_E3BNC8	H L N H I Y H L T Q L Q H F I D N C D Y I Y L T I D L L D V F P A E T A P G V		
UniRef90_C7NPI7	A W T P D F A D E S I Y L S V D I D A A D P G F A P G T		
UniRef90_Q1LD69	E R H L D H R L A E I D A M L A Q A A H V Y V L T I D L L D V L P A A V M P G V		
UniRef90_H1HV11	E N G W K A S I D K A I E L A F K D T D F V Y V T I C S D A L D A A S M P Q		
UniRef90_U1QRH1	E W E P A L D G Q Q A Y L S V D I D A A D P G F A P G T		
UniRef90_Q8YUM9	K L Y G E T N W I E L S R E I V N H L P E Y V H I S F D V D G L D P K L C P N T		
UniRef90_Q9YFC5	E M G P R R A A E V V A R A A D N A E H L H S I D L L D G L S A A V A P G V		
UniRef90_UPI0003673310	G V E E A E D L A A Y L K E G M P Y Y I S Y D L D V L D P A Y A P G V		
UniRef90_UPI0002DBEEE9	L G Q A E K V L V R D E L D G F W I H V D A D V L D P S V L P A V V		
UniRef90_A6UK41	H Q T S P P V K D K V E R F I H N H N V I M F T I C M D V F I D P K L C P N T		
UniRef90_Q6LQ58	A M G I E A A A R K A V D H L T R E A L D G F F I H L D A D C L D D V V M P A V V		
UniRef90_W5B3X0	H R T I E Q T Q A A L N T F I A E C D Y L Y L T I D L L D V F P A C V A P G V		
UniRef90_A4W8B2	R D R E K L E S L K L G E G V K G V Y V S V D V D C L D P A F A P G V		
UniRef90_UPI0004744AC4	L A Q A D R V Y L T I D L L D V L P D V A P G V		
UniRef90_F8DK41	E I G P R G V I E A L R Q R L G D A P I Y I T F D L D S L D P V D A P G V		
UniRef90_E8LP63	Q M S H Q A I I L D R I D Q F F L E N Q T A I Y L S I D M D C L D P F A V G S A P G V		
UniRef90_UPI000364B999	L A H L N H V Y H L T Q L Q H F I D K C D Y I Y L T I D L L D V F P A A T A P G V		
UniRef90_C6JKS4	R N G I E P A L A E I E S G A N V I V C L D I D A M D P S I A P N T		
UniRef90_M0DGQ5	T D I Y V T F C M D V F N A S D A P G V		
UniRef90_Q13PQ0	D F A F G D R L E G K S A Y L S V D I D G A D P G F A P G T		
UniRef90_UPI00041EEB47	E T Q L P Q R Q L N E L Q K L L D A A D D V Y L T I D L L D V L P A A T A P G V		
UniRef90_T0P5A0	R Q Y E G E T W K Q I V D D I V D K L P Q H V Y I S F D V D G L D R K L C P N T		
UniRef90_R5W311	K A N S E A I I Q Q V E S F I A G I D Y L Y L T V D L D V F A A S C A P G V		
UniRef90_C9P579	A L F R G E T W D A Q C Y R R I V D A L P Q E V Y V S F D I D A L T F E N C P H T		
UniRef90_X1KRL2	E R N Y A A L I E K M D A F I A D C D Y L Y L T I D L L D V F P A A T A P G V		
UniRef90_Q1EQG5	I D D A S R I I A E V R K L V G K A R V Y L T I D L L D V L D P A F A P G V		
UniRef90_UPI0002D97EA0	Q W G P E V I A R A V V E T L E V D V L D G F W V H L D A D V L D P T V M P A V V		
UniRef90_T0SUC0	P H T L N N V A Q S L A Q F M D S C D Y L Y L T I D L L D M D V F P A S V A P G V		
UniRef90_V4XLZ5	D I G P Y E L A L K V R E E L L K S G V E E L Y Y V S F D I D A L D A S V A S A T		
UniRef90_U7GM78	A W V D G L T P D R F A D E S V V Y L S V D I D G F D P G F A P G T		
UniRef90_A7H746	A E G I S A A L K H I P Q G A R C V V T L D C G L D P A I M P G V		
UniRef90_S7X468	R A D P A A A L E A I V A H V R A T G V S A V Y F S N D I D G T D A S F A D A T		
UniRef90_UPI000255AA26	D S W M D S A I D Q M T D N V F I T T F D L D A F D P S I M P S T		
UniRef90_U9WE16	P W R I E L V Q R Q I A D F I D R V D F V Y L T I D L L D F I P A A T T M P A V V		
UniRef90_W5VYJ4	A A Y A G Q S W L Q C Q D I V R N L P E H V Y I S C D V D G L D P K L C P H T		
UniRef90_A0A010QU39	E F A G A A E S A E W A R R R L D E L D G F W V H L D I L D P S V M P A V V		
UniRef90_U1NE4	K V D F G A E L G V V L R R K K L G A T M V H F D V D S L D T S I G H A N		
UniRef90_G8QX93	A G F D V S T W I G D R R S S Y L S V D I D A V D P G F A P G T		
UniRef90_UPI0004210EFA	R L A H S P A G L A S L T L P D S F P E K L Y I T F D V D G F D A S L M S A T		
UniRef90_G2MLT6	L A M L D E V D T L Y L T I C L D A F N A A V A P G V		
UniRef90_Q2WG92	A W E P D F E G E D V Y L S I D G A D P S V A P G T		
UniRef90_UPI00041EEE76	E Y G I E R F I N D I E R R P G R V Y I S I D M D G I D P A Y A P A V		
UniRef90_E0DFH2	R M F E G Q T W G K I T D E I I Q H L P Q K V Y I S F D I D G L D R K L C P N T		
UniRef90_M9W1J8	D L T A A E A A E L V T K A A A T A D I L H L S I D L L D V L P A H V A P G V		
UniRef90_UPI00046AF66C	A Y D Q Q V A P E I A R N I A L Y D R I Y L T I D L L D V L P A R E E M P A V		
UniRef90_UPI00041DBF02	M Q G W N M P A I E A F L D G F L D G I D V L Y M T L C L D V L P A S Q A P G V V		
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UniRef90_UPI0002DC35E4	G W L D D T D V D A L L D G R E A Y L S V D I D G A D P A Y A P G T		
UniRef90_UPI000360C148	S H I L S I E T T I S I S S F I E E Y D E I M L S I D D V L D V S Y A P A V		
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UniRef90_Q5L086	D W E P D F E D E R V Y C S L D I D A A D P G F A P G T		
UniRef90_UPI0003669DB8	L T A G P I E A A Y E Q I E K F A A D H D A V M L F C M D A L S A A A A P G V		
UniRef90_UPI0003AA289B	N K S I Q D A M K Q A F A H L G R N V D H I Y V D L D V D V C D R S V A P A C		
UniRef90_D8JA78	E V H A E G V E A A L R H I P E G A Q V V I T L D C D G L D P S I M P G V		
UniRef90_A0A023NVN3	T W L G S T D A T E R L S G R D V Y L S V D I D G T D P G F A P G T		
UniRef90_M0CNJ6	D W E P D V G D D E S A Y L S V D I D G F D P A Y A P G T		
UniRef90_M1Z959	S L E P Q Q I F R S L S Y N E P I Y I S V D A D V E F D P T Y A P E V		
UniRef90_F7VM6	K H G I D W I S T I K A R V G D S R V Y I S V D V D V L D P A F A P G T		
UniRef90_K6ZEJ2	C N T N A A K Q L L E P M L K Q V D E L Y V T V C L D A F A A A N V A P G V		
UniRef90_Q2SEP7	C G Y T Q L G P M L R A L D A F L S K V D C L Y L T I D L L D V L P A A T A P G V		
UniRef90_W9G9Y3	G A V E R I K A R V G N R P T Y V S L D I D V L D P A Y A P G V		
UniRef90_A0A023VAC8	C D S A Q A Q L A Q F A S G A D V I Y L T I D L L D V L P V W E M P A V		
UniRef90_M5QN0	D E F L Q E V D H L Y M T I C L D V L P A S Q A P G V		
UniRef90_A3UKG9	E L I A D P L A A N P A I T D L I A R N D L V Y L T I D L L D V L S H F Q A P G V		
UniRef90_UPI00037008AD	K K G V S V H V K E A L D C L S K K V D R I Y V T V D M D V L D I T Q A P G V		

250 260 270 280

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UniRef90_UPI0002ED291B	A T P N V G G L S A R E A L T L V H E L A A H P K F V G I D F L E Y L P E K D P
UniRef90_UPI00047857A7	S A S N P R G F K A P E L E K I A Y L A G R T D R I R Y L D L V E M C P P L D E
UniRef90_UPI00039E28EA	G T P S P G G I S W R E A Q F I L E R C I Q G R E V V G L D V E L A P I P G M
UniRef90_H1Z4P1	D C R Q E D G L T Y D E L H E I V T T L V Q H K R C F G L E I T I L D P D L D P
UniRef90_B6XEG0	S A P A A R G I S T E T F D E L F N V I K S S G K I T L F D I A E C N P E F D I
UniRef90_E6WKH3	G A H E P G G I T S D Q A L Q M V S M L A P H C A A M A I T E V N P T K D V
UniRef90_S3DDL4	G T P E S G G G W T S R E V I K I L R G L E S N V N V G A D I L E V A P A Y D S
UniRef90_UPI00039BB12C	A T P N V G G L S A R E G L T L V K N L A S N A K F V G I D F L E Y M P E L D E
UniRef90_UPI000477CDB4	D V P L Y N G L T K A E A M T A L S E F V A H P G F A G M T F A E F N P D H G E
UniRef90_I7BMT1	G T K E P F G L E P R E L R D V V R A V A P Q A S G F D V V E V N D R R
UniRef90_M0A7C7	G T T E P F G L E P R E L R D V A V A P Q A T G F D V V E V N D R S
UniRef90_U1JNB2	G T P E G N G M T P D E A L E I L T A L R A E F P I T G A D M M E I A P F T D S
UniRef90_A6X7J4	A A P C A G G M T F L Q A R K L I H G L V K K G R V V G M D V V E I T P A T D V
UniRef90_D4TJI0	G T P V P G G L E L E Q A Y G L F R K V V K T G K I G F D V C E V
UniRef90_E1RDQ4	G T P E P F G L R P E D I R A V V D R F G T V C C G F D Y V E V C P
UniRef90_N2BRD5	G C N E S N G L Y M Q E L I M L T K D I I E S H K I I A F E L S E F N P T L G N
UniRef90_W8EX81	S A P S A D G L T P R Q A A Q A A F M A G K E P E V L L F E L M E L N P L F D R
UniRef90_UPI000370FBF8	G T P Q P G G L G W Y D V V E L V E T L I A N P R I R G C D I V E L V P E
UniRef90_D0CV76	S N L E P G G F D I D E A V G I L H A A R G L N V G G D V C M M P T K D S
UniRef90_UPI00037C3785	S A L A Y N G F F A D S A L H F Y K H I L K S E K L I A L D V A E V N P T Y D I
UniRef90_W9GCZ7	G T P E P G G L T S R E L L S V L R G L K G A N V V G C D V V E V S P A Y D H
UniRef90_E1VCK6	S A P A A R G V P M A L L E P L I E A V R D S G K L C L A D I A E L N P D H D I
UniRef90_N9RT22	S A P A V K G I D L S V F D P L L E A I K E T G K I K V F D V A E C N P R F D L
UniRef90_K9ZQS2	G T P V P G G L E L E Q A Y C L F R E L V N S G K I I G F D L C E V G D
UniRef90_L8J515	S A P A A R G V S P D I I E Q L L A P V H G A S K I L V A D L A E F N P R F D I
UniRef90_E3BNC8	S A P A A R G V S M D M L A P F I R I L H Y K Q K L V I A D I A E Y N P T Y D V
UniRef90_C7NP71	G T M E P F G L T P R E I H D V V R S V A P H A E A F D V V E V N D R D
UniRef90_Q1LD69	S A P A A Y Y G V P I S V I E A L V T H V R G S G K L R A A D L A E F N P Q F D R
UniRef90_H1HV11	G P Q D M G G L T S Y E L C M M V H E A G L A G A K G F D F V E I Y P D
UniRef90_U1QRH1	G T P E P F G L D P A T M R D V V R A V A P S C V G F D V V E V N D R D
UniRef90_Q8YUM9	G T P V P G G L E L E Q V F C L F R E L V N S G K I I G F D V C E V
UniRef90_UPI000475D68E	S A P A A V G V S L A A Y R A M A R A A A A S G K L R L V D V A E L N P R F D V
UniRef90_Q9YFC5	G N P E P F G G L S T R E M V R I I K S L P E D V L A F D V V E A S P P H D P
UniRef90_UPI0003673310	D S P T P G G L D A A Q I L T G L L R G L L A L P G A A G L I E V T I L D P D L D E
UniRef90_UPI0002DBEEE9	S A N A V L G L F P H I V L E L A K R I I P N E K V S T I S I A E T N P K Y D V
UniRef90_A6UK41	D F R V P P G G L S W D E L G V A L R V A L A S G K A V G I E V T I Y N P R L D A
UniRef90_Q6LQ58	S A P A A R G V S L E I E Q L M E P I L G D S K L L V A D L A E Y N P R F D I
UniRef90_W5B3X0	S H I E P G G L S F R D V L N I L Q N L I Q G D V V A G D V V E F N P Q R D T
UniRef90_A4W8B2	S A P A A L G I P A L D L L P V I E Q I C R S G K L Q A A D L V E F N P L Y D R
UniRef90_UPI0004744AC4	S N L E P G G I R I G D A V R M L Q G L N V G G D V V C L M P T K D N
UniRef90_F8DK41	S A I Q S L G V D P K L A L M L Q H I A A S G K L I G F D V V E V S P P H D I
UniRef90_E8LP63	S A P A A R G V S I D M I A P F I E R L H Y K Q K L V I A D I A E Y N P T Y D V
UniRef90_UPI000364B999	I G R A P P G G L S Y Y Q V L D L I R G A S E R G S I A A I D F T E I M P E V D V
UniRef90_C6JKS4	S A P T A M G L D P K K G K R I L R E I M M S K K V V C I D F A E V N P E Y D I
UniRef90_M0DGQ5	G T P E P F G L E P R E M R D V V R T V A P H A D G F D V V E V N D R
UniRef90_Q13PQ0	S A P A A L G V P L S V I E A M V L R V R A S G K L R V A D I A E Y N P T L D Q
UniRef90_UPI00041EEB47	G T P V H G G F E G E E V L Y L F R K V V R E S G R L I G F D L V E I G V
UniRef90_T0P5A0	S A L A H N G I Q P D F F L E I F Q L I I S S G K L I S M D I A E F N P A Y D I
UniRef90_R5W5311	G T P V S S G G L T F N Q A V W L D L T L T R S G R I L I G F D V V E V C P A P D E
UniRef90_C9P579	S A P A A Q G V S L D N F H L Y F D H L L Q H D K L L I A D L A E Y N P S H D I
UniRef90_X1KRL2	AT P E
UniRef90_Q1EQG5	D S P D A G G L L P D E L L A L L R P L V N S P R C V G L N L T I Y D P D L D P
UniRef90_UPI0002D97EA0	S A P A T H G V G Y P L V E H I K Q V L G E Q K I R L A D I A E F N P N Y D I
UniRef90_T0SUC0	G T P E I D G L M P H E C L I I L K T I N E K I K I T G A D M V E I A P N V G N
UniRef90_V4XLZ5	G T P E P F G L A P R E G R D L V R A I A G H A D G F D V V E V T D R
UniRef90_U7GM78	A A R T P G G L T Y T Q V I D L I A G L R G R A R I V G F D V V E F Y P P N D I
UniRef90_A7H746	G T P E P F G G L A P E F V S A L V A R L G R E V G L L A G G D V V E F N P A Y V A R
UniRef90_S7X468	G T P E P F G G L L Y Y E T L L E F L K Q V F E E K N V V G F D I V E L C P
UniRef90_UPI000255AA26	S A P A A R G R G V A F E L F E P L L D T V L E S K S K V C L A D I A E F N P Y F D I
UniRef90_U9WE16	G T P V P G G L N L E E V Y C L W R E V V R S G R I I G C D C E T
UniRef90_W5VYJ4	D A P D P G G L E H A E L A E L T G L T V A P G C M G V E T V F D P D L D P
UniRef90_A0A010QU39	R F A A P G G G L L R E D V L G C F E R I S E T T E P V S L T V A S F D P S Y E G
UniRef90_U1NEU4	G T P E P F G G I T P Q N A R E I I V R T A A G G S A V G F D I V E V T D R
UniRef90_G8QX93	G T P D P G G L F W W D A I T L L D V L T K G R T I V G S D V V E L A P N K M L
UniRef90_UPI0004210EFA	S A P S A L G V D V S D I I Q L V R W V G E Q V R Q R G A D I A E M N P A F D Q
UniRef90_G2MLT6	G T M E P F G L S S R E M R D V V R A V A P H A V G C D A V E V N D R
UniRef90_Q2WG92	G T P E P F G L T D Y E V V R R L V E R L I S Y K A I G M D I N E F S P L Y D N
UniRef90_UPI00041EEE76	G T P V P G G F E T E E I I Y L F K K I K Q S G R L I G F D L V E I G V G Q
UniRef90_E0DFH2	S A P A T L G V A L P Q V R A M C L A A A H T G T K L R L V D V V E L N P T Y D V
UniRef90_M9W1J8	S A P A A L G I P L A I L L R I V E P L C R S G K L Q A V D L V E F N P Q F D I
UniRef90_UPI00046AF66C	S A P S A H G V D V Q V V E H L V R R A Q A S G K L R V A D I A E L N P G L D H
UniRef90_UPI00041DBF02	S A P A A Y G I N L G F V E R A V K L I M D S G K V K I A D I A E I N P T Y D I
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UniRef90_UPI0002DC35E4	S A P C I M G L Q P Q I V Q T I I L Q V T N S N K S T S I S I A E L S P R F D I
UniRef90_UPI000360C148	V Y P S S G G L D P E T L A A L V R N V I G A G R L V A G D L V E A C P S P A G
UniRef90_C7P3P5	G T R E P F G L T P R V L R D V V R A V A P H A V G F D V V E V N D R
UniRef90_Q5L086	S A P S P F G L A P S L A R A I R R I V S H S P K T I S V D L C E V N P L L D E S
UniRef90_UPI0003669DB8	P A A T P G G I S A D E L R Q A A F L A G A N Y K V R A V D I T E I D P K R D S
UniRef90_UPI0003AA289B	A A R T P G G G L T Y T Q T I D L I A G V D K R A R I V G F D L V E F Y P P A D I
UniRef90_D8JA78	G T K E P F G G L T P R E M R E V V R V V A P H A V G F D V V E V N D R
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UniRef90_M0CNJ6	G T K E P F G L E P R E G R R V V R E V A P Q A T G F D V V E V N D R D
UniRef90_M1Z959	T W P V M G G L T F F Q Q M F K L F D Y L I Q N Y R V I G A D F V E V C G P R N G
UniRef90_F7VUM6	G T S E P P G G W S T R E L L T I D G L R G L S V V G A D V V E V S P A Y D N
UniRef90_K6ZEJ2	S A P S A L G I S V E F V I Q M L R W I A Q S Y N W R L A D I A E M N P N Y D I
UniRef90_Q2SEP7	S A P A A Y G V P L E I V E A M L D A L Q R K A L P V L M D I A E Y N P T Y D I
UniRef90_W9G9Y3	G T P E A G G L T S R E L L N M L R A F A D L N L V G A D I V E V A P A Y D Y
UniRef90_A0A023VAC8	S A P A A L G V P L A T L L G L I E P L C R S G K L Q A V D M V E F N P R F D D
UniRef90_M5QNM0	S A P S A H G V D M Q I V E H L V R H A K A S G K L R M A D I A E L N P S L D T
UniRef90_A3UKG9	S A P A A R G V P F S T I E R V S L V L K T A S L P L A D L V E V S P A H D R
UniRef90_UPI00037008AD	P A S T P G G M T T V E L F D A L I E I G K C T E V Q N L D F V C L D P T K D S

310

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UniRef90_UPI00039E28EA	N G R T A A L C A G I L F W F	
UniRef90_H1Z4P1	H H A D F T	
UniRef90_B6XEG0	D G V Y T K A F I N N I M	
UniRef90_E6WKH3	D N H T S K L A A Y L V Y Q Y L F	
UniRef90_S3DDL4	G D M T S T L A A Y L A F T F A	
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UniRef90_V4ZRV9	UniRef90_D5NWY3	V P I S F T N I G P V D A F E G E I G R T F E V L R R I A T A V E V V	
UniRef90_D5NWY3	UniRef90_Q236D2	T	
UniRef90_Q236D2	UniRef90_A0A038H537	A G D V V C A D G E L E A A Q A R L A R A L	
UniRef90_A0A038H537	UniRef90_UPI000476C777	L K I A D L G N L S P G I T P E E T H L R I K E A C	
UniRef90_UPI000476C777	UniRef90_UPI00046A10E5	I K A V D D G D D V A I P S Y L P H H S I P P I R S W P A P R I A W E C V S E R V	
UniRef90_UPI00046A10E5	UniRef90_T0L040	E Y Q I D I S N L K I S D Y G N I Y I Q G N K D Q T S E D L I N K L Q L K I	
UniRef90_T0L040	UniRef90_UPI00035FE7F8	Q I D V T E E M E F L Q E L N P N D K N D R K V F Y K Q V E K I D K E V S H I V	
UniRef90_UPI00035FE7F8	UniRef90_UPI0003B49552	A D G R P N G W F D A N R E T W I M A G D V Y V E Y G E A Q A E L F G R I A S V	
UniRef90_UPI0003B49552	UniRef90_N6ZQJ4	S G E N I L L V G H I D C D D L M H A A L S D T S H T H Q Q Q L C A Q L D Q R V	
UniRef90_N6ZQJ4	UniRef90_UPI000476C1E2	C R L V D L G N L R P G L T L E D T Y Q R L R E I I	
UniRef90_UPI000476C1E2	UniRef90_R7J4X9		
UniRef90_R7J4X9	UniRef90_D9VDX7		
UniRef90_D9VDX7	UniRef90_UPI00036913FC		
UniRef90_UPI00036913FC	UniRef90_G0R0U2		
UniRef90_G0R0U2	UniRef90_UPI0003F8BC47		
UniRef90_UPI0003F8BC47	UniRef90_R5WA60		
UniRef90_R5WA60	UniRef90_F8CIX0		
UniRef90_F8CIX0	UniRef90_F3LJ33		
UniRef90_F3LJ33	UniRef90_W8EW57		
UniRef90_W8EW57	UniRef90_UPI00037846B3		
UniRef90_UPI00037846B3	UniRef90_R7CT44		
UniRef90_R7CT44	UniRef90_UPI00047019DE		
UniRef90_UPI00047019DE	UniRef90_R7ZJT1	T D A P V F H V P V K A P G E P L S V E E G I T G R S E I N Q H L T D A W K I I	
UniRef90_R7ZJT1	UniRef90_XOBPW3	E Q V D L R A L A V V D I G D V H A T D K M L S E S A I E A A A E N L S I A Y	
UniRef90_XOBPW3	UniRef90_M3JJX6	I D K E L S K L A P V S F I N I G P V D E F E G E I G R T F E I L R R I S N A V	
UniRef90_M3JJX6	UniRef90_R5XTY7	Y D L S V K T V G T P A A A V S D D W S E A L P Q A H D T L K G L A A A V	
UniRef90_R5XTY7	UniRef90_U1PST7		
UniRef90_U1PST7	UniRef90_W2UPF8		
UniRef90_W2UPF8	UniRef90_UPI00041C6442	G K I L L L G H D F S K E V E N V D F N S P E L P K K L Q N V I N I I D K E I	
UniRef90_UPI00041C6442	UniRef90_W0ZAQ1	V R R K L Y S L N K G S G R C Q L V D L G N L R P G I T L E D T Y L R L K E I V	
UniRef90_W0ZAQ1	UniRef90_UPI000255A538	T K L P F Y D A G D I E Q T I D D Q S F A G N E L K D T Y Y A V K E T V	
UniRef90_UPI000255A538	UniRef90_R5KQ65		
UniRef90_R5KQ65	UniRef90_D0Z3Q2	H G H L P V Y D A G N I E L E Q S H F T A V A Q Q Q Y L T L	
UniRef90_D0Z3Q2	UniRef90_X1AZB1	I D K W K I Y D C G D I S I T T K T E K T V K E H L F K T L	
UniRef90_X1AZB1	UniRef90_W9A7I1	T K L P F Y D A G D I E Q T I D D Q S F V A V S Q R Q H Q L L	
UniRef90_W9A7I1	UniRef90_UPI00046303AE		
UniRef90_UPI00046303AE	UniRef90_UPI0003B68F50		
UniRef90_UPI0003B68F50	UniRef90_W0H6U2		
UniRef90_W0H6U2	UniRef90_17LW93		
UniRef90_17LW93	UniRef90_UPI0002D2CC20		
UniRef90_UPI0002D2CC20	UniRef90_UPI00047D6731		
UniRef90_UPI00047D6731			

90 100 110 120

UniRef90_UPI00037D850A	L G A H G D R P V P V L L	G G E H S I T A P A V A A V A D H L R P L G V I I Q I D	
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UniRef90_Q1Q9E3	S Q I I K Q G G L P I G L	G G G H A I A Y G S F L G L W Q A L P R I G I I N F D	
UniRef90_G6XL33	G N V C T S G E F A L V I	G G D C S I L L G A L V G A R Q I G P I S I H I D	
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UniRef90_U2YW52	A A Q A H R A L T I L I	G G N N A I T R P A A H A L G L E R V G V L T L D	
UniRef90_T1UED9	F E K K D F P L L I L	G F I F Q A F R S V H K D I G I I L Y I D	
UniRef90_C2GHP7	A A I T S T D T T C I V V	G G G H E T A Y G T H M G L S S D S A S I G I I N F D	
UniRef90_X6KFD5	R I A I D R G R L P I V L	R I A I D R G R L P I V L A G N C I T S A G A V A G E D A D A I I W A D	
UniRef90_UPI00037E9AFB	S I I A D A E K P V I S I	S I I A D A E K P V I S I G G D H S I T G G I L Q G L A K Q G K K V S I L L H I D	
UniRef90_M5EXE2	A S A L G R G E L P L V V	A S A L G R G E L P L V V G G D C A I L L G A L A A A R R S G P L A I I H V D	
UniRef90_S0DHQ2	A N I A R S G E F P I V I	A N I A R S G E F P I V I A G N C S T T V G V Q A G L T A A L G K I P C I W F D	
UniRef90_F0LV72	A K A L S H T P V I V I L	A K A L S H T P V I V I L G G G H E V A W A T F Q G L A Q H Q P R I G I I N F D	
UniRef90_UPI0004004691	T E L V K K N I L P V I L	T E L V K K N I L P V I L G G S Q D L T Y A Q Y M A Y E E L E Q K V D L L V I D	
UniRef90_UPI00036574EA	R D S L R A R R F P L L I	R D S L R A R R F P L L I G A D C A V L L G A L P A L R D E L G A A G L L F M D	
UniRef90_W5WIQ2	V L T I G G D C G V E T V P L A L	V L T I G G D C G V E T V P L A L A R K R F G P L G A L W F D	
UniRef90_G5K5G4	Q R M R E L N L R P I V L	Q R M R E L N L R P I V L G G G H E T A Y G H Y A S L P E E D K E L A V I N L D	
UniRef90_Q8RFN0	A K L K S K D Y F V V C	A K L K S K D Y F V V C M G G G H D I A Y G T Y A K T Q T K D P K V G I I S F D	
UniRef90_UPI0003B5BDB6	R A G S E P V V T I G	R A G S E P V V T I G G D C G V A L G A V S A I A G D D L A V V W I D	
UniRef90_V4JLD9	R E R G V P A V V T I G	R E R G V P A V V T I G G D C G V A L G A V S A I A G D D L A V V W I D	
UniRef90_UPI00036423FA	H H A A A P D E A V L T I	H H A A A P D E A V L T I G G D C G I A L A P I A H A A R R S P G L A V V W I D	
UniRef90_F0SF23	T E L I K Q N I L P I I I	T E L I K Q N I L P I I I G G S Q D I T Y G Q Y L G Y E A L E Q K V D L L V V D	
UniRef90_UPI00034CA25E	D P A R T L T L	D P A R T L T L G G D C G A S D L A A V Q H L A A R Y P G M A C Y W V D	
UniRef90_F4ARQ2	A N S L Q Q S A F V I G L	A N S L Q Q S A F V I G L G G G H E I A W G S Y L G L H Q A F K R I G I I N F D	
UniRef90_UPI0003803782	R H D P A R I T T L	R H D P A R I T T L G G D C G S V S L A P F S A L A H R Y G D L A V V W I D	
UniRef90_Q6AG97	T V G G D C G A D L A S V Q H A T R P G G A L A L V W F D	T V G G D C G A D L A S V Q H A T R P G G A L A L V W F D	
UniRef90_UPI0003B5DC2B	A H F M R K K H T L M V L	A H F M R K K H T L M V L G G G H E H E M A Y S N F K A L H E T Q P R I G I I N F D	
UniRef90_F8E3E1	Q Q L I A K N N L V V V L	Q Q L I A K N N L V V V L G G G H E T S F T H R G L H H S K G L E T G S A H D	
UniRef90_UPI00037C67A9	A S S R S R L T V A V	A S S R S R L T V A V G G D N S L T V P A A G S F G G D L G A A G L I T I D	
UniRef90_UPI000288032F	Q A Y A A D P A T H V T I	Q A Y A A D P A T H V T I G G D C G V E L A A I D H V S A S A P A V V W I D	
UniRef90_UPI0003B44441	L I E S H S P K S I L L V V	L I E S H S P K S I L L V V G G D C G S V E L A P I S F L N R V L D N M G L V W I D	
UniRef90_UPI0002E30058	A D A L D D D H E P V T I	A D A L D D D H E P V T I G G D C G I A L A P I A H A V R R T P G L A V V W I D	
UniRef90_R5J1D6	T L G G D C G S V S V V P F T Y L A E K Y P E V A V V W I D	T L G G D C G S V S V V P F T Y L A E K Y P E V A V V W I D	
UniRef90_W2RL40	S A A P E R P P F Q L I L	S A A P E R P P F Q L I L G G E C C M L P G I I W S Y Y A S L G K R V G L V Y I D	
UniRef90_H5URZ3	A R E L D T T R F V V V L	A R E L D T T R F V V V L G G G H E H E T A Y A S Y R A A R L E G A R V G V L N L D	
UniRef90_UPI0003754206	A G A M A G G H F P V V V L	A G A M A G G H F P V V V L G G G H E V A Y A S Y L G L D S G L G P L G V L N L D	
UniRef90_UPI0003649E77	G E A L A I H S K L I V F	G E A L A I H S K L I V F G G G H E H E T A F A S Y L G L R S A Y P D I G I I N L D	
UniRef90_B9JQ52	K G A R E R G R I P I A C V G A C	K G A R E R G R I P I A C V G A C S A A L G M V G G V G E T E G E I G M I W L D	
UniRef90_UPI0003819FE1	I V V G G D C G V E V P I L	I V V G G D C G V E V P I L E A A L A E H G S G L V V V W F D	
UniRef90_UPI0003768C7B	A E L I K K M N I C P V I L	A E L I K K M N I C P V I L G G S Q D L T Y A Q Y M A Y E E L E Q K V D L V V I D	
UniRef90_B4MERO	Q L M L R E N A Q F L A I	Q L M L R E N A Q F L A I G G D H A I G F G S V A G H L Q H T P N L S L V W I D	
UniRef90_R7L7V7	M G L I W V D	M G L I W V D	
UniRef90_I1S4F4	A T A A K N N S F P L V L S	A T A A K N N S F P L V L S G N C Y G S T G T L A G L N Q H G A R P G A L W L D	
UniRef90_K1WFA1	D G R E H P R I L T L	D G R E H P R I L T L G G D H T I V L P I L G A L Y D V Y G P I T V L H F D	
UniRef90_H5WF74	H G L L D R G A F P I G L	H G L L D R G A F P I G L G G G H E I A W A S F G G L A R H L A R I G I L N L D	
UniRef90_A5DD45	E E L V K M D I V P I I I	E E L V K M D I V P I I I G G G H D I T Y A Q Y M A Y E N L E Q R V E V A I I D	
UniRef90_C2G0E3	T G D A S L P P F Q L I L	T G D A S L P P F Q L I L G G E C G M S P G V L S A F W Q H H K R V G F L Y I D	
UniRef90_W3X1C5	T Q I A A R A R L V V A	T Q I A A R A R L V V A G G D N A L T V P A A L G V A G T A L P A A G L I T D	
UniRef90_UPI000468F1E1	R R V L L D D G R R A L V L	R R V L L D D G R R A L V L G G D C T V G V G A V A G V A H R G R V G L V Y L D	
UniRef90_UPI0004228544	A A L V A D D V V P L L V	A A L V A D D V V P L L V G G E H T V V A V A G V R A V D P D T V V V L D	
UniRef90_V4ZRV9	R I A E Q D P D R I T T F	R I A E Q D P D R I T T F G G D C S V V A V P S V A H L A A K Y D D L A I I I W L D	
UniRef90_D5NWY3	K S V L N K K N I P I V I	K S V L N K K N I P I V I G G S K D C G Y A A A S P I L Q L E G K S A V I N L S	
UniRef90_Q236D2	A V V L L A R G A L P I V I	A V V L L A R G A L P I V I G G D D S I P P L C V R A Y E S R G P L N V L Q F D	
UniRef90_A0A038H537	A A Q T L L R A G E H P V V I	A A Q T L L R A G E H P V V I G G D C S V L V G T G L G L A A A G P T G L V H I D	
UniRef90_UPI000476C777	I E N P D K I V T L	I E N P D K I V T L G G E C S V S V A P F T Y L A D K Y K D V A M I W I D	
UniRef90_UPI00046A10E5	A A A A S R S R F P V V L	A A A A S R S R F P V V L S G N C N A S A V A V A G L H A S V P D L N V L W I D	
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UniRef90_UPI00035FE7F8	W A L T I	W A L T I G G D C G S S L A A V A V A H A A R T R G D L A V L W L D	
UniRef90_UPI0003B49552	A A V L Q K N L S C V V L	A A V L Q K N L S C V V L G G G H E V I A F G T W Q G L A E E H A P R I G I I N L D	
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UniRef90_R7J4X9	T L G G E C S V S V V P F T Y L A E K Y K D V A I I W I D	T L G G E C S V S V V P F T Y L A E K Y K D V A I I W I D	
UniRef90_D9VDX7	V L T I G G D C G V E V P I L	V L T I G G D C G V E V P I L G G E C S V S V V P F T Y L A E K Y K D V A I I W I D	
UniRef90_UPI00036913FC	T A L L K S P S Q P L L I	T A L L K S P S Q P L L I G C D C S V V I I G T T Q A L K T S N E E V H V L Y V D	
UniRef90_G0R0U2	S S V F K K G N I P F L	S S V F K K G N I P F L G G S K E C S F G I I N Q F Y G L Q G S H A I I S L S	
UniRef90_UPI0003F8BC47	C Q I I K K G K T P I V I	C Q I I K K G K T P I V I G G G H H N N A Y G N I K G L A A K G K P V N A I N F D	
UniRef90_R5WA60	A A L L E H N T V P L L	A A L L E H N T V P L L G G E C S V S V V P F T Y L A A R Y G D V A M V W I D	
UniRef90_F8CIX0	L G T L L G E G A V P V V L	L G T L L G E G A V P V V L G G D G S V T Y A V A A A L L R R G P L T V V R L L S	
UniRef90_F3LJ33	H H I L L N A G L T P I I I	H H I L L N A G L T P I I I G G G H H N N A Y P I I K A C A E S K Q Q A M A V N L D	
UniRef90_W8EW57	A A L L E H N T V P L L	A A L L E H N T V P L L G G S H D L D Y G Q F L A Y E T L D R P V C F A T I D	
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UniRef90_R7CT44	I T F G G N C I L L	I T F G G N C I L L G G D C S V V I I G T T Q A L K T S N E E V H V L Y V D	
UniRef90_UPI00047019DE	H E Q Q P D S I V T L	H E Q Q P D S I V T L G G D C L V S Q A P F A Y L N E K Y D D L G D L G V L W F D	
UniRef90_R7ZJT1	Q K S F T T C I H T	Q K S F T T C I H T G G D H T I T A C S L R G I K N A F P R I G V I Q I D	
UniRef90_XOBPW3	S K A V S N N S F P L V L	S K A V S N N S F P L V L G G G H C Y A S T A T M A G L N Q A R P K T G V L W F D	
UniRef90_M3JJX6	A A D E L K A G R R P L L A	A A D E L K A G R R P L L A T N T C S A S L A T I P Q A A S Q I D G L T V L W F D	
UniRef90_R5XTY7	E N P D K I I T I G G N C	E N P D K I I T I G G N C L V S L A P F D Y L H G K Y K N T G I V W I D	
UniRef90_U1PST7	R A A V I D D A V P V M I	R A A V I D D A V P V M I G G E H T V S W A G V R A T E P S T V V V L D	
UniRef90_W2UPF8	T Y I I V S S G K T P I I I	T Y I I V S S G K T P I I I G G G H H N N A Y G I L K G C A L A H G P V N V I N I D	
UniRef90_UPI00041C6442	E V L I S H N T I P V I I I	E V L I S H N T I P V I I I G G S Q D L E Y G Q F M G Y E H L D R V V N M V T V D	
UniRef90_W0ZAQ1	Q D A V S N G E G P I V I I	Q D A V S N G E G P I V I I G G D C C V G S V G A V A V V G E G G D V A L V W L D	
UniRef90_UPI000255A538	F Y L F K K N I L P I L L	F Y L F K K N I L P I L L G G S I D L I Y A N Y R G Y D N L D Q M V N L A V V S D	
UniRef90_R5KQ65	T I L G G E C S V S V V P F T Y L A E K Y K D V A I I W I D	T I L G G E C S V S V V P F T Y L A E K Y K D V A I I W I D	
UniRef90_D0Z3Q2	C E L L Q Q G Q Q P V V L	C E L L Q Q G Q Q P V V L G G G H E I S V A S Y Q A V S D V M A Q L H I D T T	
UniRef90_X1AZB1	E P L L S R N L K N F L F L	E P L L S R N L K N F L F L G G D H F S V C A L T K I K A F S G K K I G I L Y L D	
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UniRef90_UPI0003B68F50	W T L T V G G D C G V S L T A V E N A A A R H P D V A L V W F D	W T L T V G G D C G V S L T A V E N A A A R H P D V A L V W F D	
UniRef90_W0H6U2	L I D K H Q P D R I V V V L	L I D K H Q P D R I V V V L G G D C L V D L A P F A Y L N E R Y G D L A V L W F D	
UniRef90_7LW93	G Q I L D Y N L Q F F A I	G Q I L D Y N L Q F F A I G G S N D Q S Y C N V Q S I F D C F P D K K I G V I N F D	
UniRef90_UPI0002D2CC20	D C T T S L G T V A G L Q R A G V T P S V V W F D	D C T T S L G T V A G L Q R A G V T P S V V W F D	
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130 140 150 160

UniRef90_UPI00037D850A	A H A D L R Q E Y E G S T [L] S H A S [V] M R R [H] Q D [L] G I P
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UniRef90_Q1Q9E3	A H L D L R Q S D [V] A T S G T P F R Q I A E H L D E Q G Q P F N Y C C I G V S R
UniRef90_G6XL33	G H S D F R H P G N Y D P N G A A G M D L A L A T G R G E A L L T A W P D V S
UniRef90_U2IZT1	A H L D I R P [L] K D G V G N S G T G F Y Q I A D D L S R E G R S F H Y L A L
UniRef90_U2YW52	A H F D L R D T D H G L T N G N P Q A L L D D G
UniRef90_T1UED9	A H A D H T A Y D S D S K H I H G M P L G M V L N S G F N R M N E S E E K A W
UniRef90_C2GHP7	A H F D L R T A D R P T S G T P F K Q I S Q E V D P F H Y T
UniRef90_X6KFD5	Q H G D N T P E T S I F G F L D G M A L A T V L G L C W K P M A S A I P G F R
UniRef90_UPI00037E9AFB	A H T D T Y H Q L S H F L G A K K S A A H W G S Y L V
UniRef90_M5EXE2	G H S D F R H P G N Y D I G S A A G M D L A L A T G R G E P L L T D W P D I A
UniRef90_S0DHQ2	A H D D F N T P D V L K S G Y L D S M P V A M M A G L C W K T L L T S I E G
UniRef90_F0LV72	A H F D L R A F E S A L A P V K P S S G T P F N Q I Q H Y C A E H N W C F H Y A
UniRef90_UPI0004004691	S H L D L D E N Q E N T L E T S S S S Y L N K I L L H E P N Y F N Y S N M G Y
UniRef90_UPI000365774EA	A H E D A T T M D S S P D G E A A N M E I A L L L G L T G R D A P E S M R H R L
UniRef90_W5WIQ2	A H G D L N T P A T S P S G A Y H G M A L R H A F G E G D R D F V
UniRef90_G5K5G4	A H F D L R P Y D Q N G P N S G T G F R Q M F D D A V A S D R L F K Y L V L G I
UniRef90_Q8RFN0	A H F D M R E Y N K G A N S G T M F Y Q I A D D C K R E G I K F D Y
UniRef90_UPI0003B5BDB6	A H P D L N V A E S S P S G A F T G M V L R S I L G E G E P V V R
UniRef90_V4JLD9	S Y H D L R P S E G V T S G A W L R E L V E S S G A R A F V V G
UniRef90_UPI00036423FA	A H P D L N S D S S P S G A F A G M V L R A V L G D G A P D L S L
UniRef90_F0SF23	S H F D M N E [Y] D S N N H T D S D S Y L N H I F L H Q P N Y F N F S N L G Y
UniRef90_UPI00034CA25E	A H P D L N T P E S S P S G R A H G M V L R A L L G Q G H G M L T G
UniRef90_F4ARQ2	A H F D L R K P A P N A S G T P F R Q I F Q H C A D N T S A F H Y
UniRef90_UPI0003803782	S H P D I G T P D G D Y P G Y H A M P V A H L T G H D P D V L G L
UniRef90_Q6AG97	A H G D L N D V A T S P S G A F H G M V L R A L L G D G P D G L A S T G S
UniRef90_UPI0003B5DC2B	S F L G M N Q L D K T S L N S F S Q I A H Y C K E E K R D F N Y
UniRef90_F8E3E1	A S T F E Q G S E S A G A T D E V G S T G I V N L D A H F D L R S A E K P T S G T
UniRef90_UPI00037C67A9	A H H D L R D G S S N G S P V R E L I E A G
UniRef90_UPI000288032F	A H P D L H T P A T S P S G A F T G M V L R T L L G E G P A A L V
UniRef90_UPI0003B44441	A H P D L N T P E S S P S A H F H G M P L R A L L G E T H E S I L A R
UniRef90_UPI0002E30058	A H P D L N T P D S S P S G A F A G M V L R A V L L G D G D A G L V I
UniRef90_R5J1D6	A H P D V N [P] Y D E Y E G Y H A M A L T A C L G M G D E E I M G L
UniRef90_W2RL40	A D T D L H S P A D A S S T G N L G A Q T L T H L A D A P G G L K S M K E F S R
UniRef90_H5URZ3	A H F D L R E A D R P T S G T P F L Q M A E G D A R A D R T F D Y
UniRef90_UPI0003754206	A H F D L R E E P V P T S G T G F L Q I A R D E R A R G R D F
UniRef90_UPI0003649E77	A H L D L R N I G E A G P S S G T P F N Q I K Q L E K D Q F D Y L C I G V A
UniRef90_B9JQ52	A H G D A Q T P D T S E N G F I E G M P V T T I I A G K C W P R Y R R K I P G F R
UniRef90_UPI0003819FE1	A H G D L N T P S S S P S G A F H G M V L R T L L G I D G Y P E M S P S
UniRef90_UPI0003768C7B	S H F D L D E S A E D T I T T N S V S Y L N K I F L H Q P N Y F N F S N L G Y
UniRef90_B4MERO	A H A D L N H S T S Q S G N I H G M P V S L E P Q L R A T W Q H
UniRef90_R7L7V7	A H G D Y N T L E T T Q S Q G N L H G L P Y A V I T N Y E K K L L A D F H N
UniRef90_I1S4F4	A H D D L D N P S I H E N G Y L D A M S A S M M T G S S W H T L M K S V P
UniRef90_K1WFA1	A H L D T W N G H E L G
UniRef90_H5WF74	A H F D L R A G E R G S S G T P F R Q I A E D C A R R G W P F H Y A C L G I S
UniRef90_A5DD45	H T W T L G N P Y Y F G G N V T D Y Q S V N H G T Y L H W A H E K G
UniRef90_C2G0E3	P R F D L D Q E Q V E H T P L N S Q T F L N H I I L H Q P D Y L F N L N N I A Y
UniRef90_W3X1C5	A D T D L A S P D D N N T G F A G M N M T N L I R S G A L K S M Q Q F A R P S
UniRef90_UPI000468F1E1	A H H D L R D G R S N G S P V R E L I E A G
UniRef90_V4ZRV9	L H A D M N V P D A T E D G T L D W M G V A H L L A L D G T R S E L R D V G L
UniRef90_D5NWY3	A H L D L R D A Y D G H A T S H A C V T R R A L E
UniRef90_Q236D2	S H P D C S T P G G N Y Q G Y H D M A L A H L T G H G D E E L L K E
UniRef90_A0A038H537	G H V D V N L P Y D G D K L S V T C T V I D D N I T H I Q N K A S K I F F F A T
UniRef90_UPI000476C777	A H L D F R D E V N G E R H G Y S S P R R I R E M P F
UniRef90_UPI00046A10E5	G H T D F R H P G N S D A C A S V A G E D L A A A I G L H W P A I S D I D G
UniRef90_T0L040	A H P D I T L P G D V Y P A Y H A M A V T A C M G L G D K K I G E
UniRef90_UPI00035FE7F8	A H D D L D T P D T N V N G Y L D A M A A S S M M C G R S W A A L M A S V P
UniRef90_UPI0003B49552	A H F D L R P Y D E Q S S S G T M F R Q I L E Q D P H A D Y
UniRef90_N6ZQJ4	A H P D N T P E T S P S G G F G G M T L R A I T L G D G A D G A L D E A T R
UniRef90_UPI000476C1E2	A H F D L R D P A H A H S S G T P F A Q I A E A A A A A R G W P F R Y A
UniRef90_R7J4X9	A F L D M E D E K E L P D N Q R H I H K M L V H E P N Y L F N F N L L G Y
UniRef90_D9VDX7	A H P D I N L P Y D E Y T G Y H A M A L T A S I G M G D E E I E M
UniRef90_UPI00036913FC	A H A D L N T A D S S P S G A Y H G M V L R S I L G E G D E E F A
UniRef90_G0R0U2	G D F D D A A P E A V H A N S A A A C A V W L L T N Q S P F W
UniRef90_UPI0003F8BC47	Q N D V D L L F D G D K L S I N S G M R K F F I E N Q Q K L D S N N F Y F G A
UniRef90_R5WA60	A H T D F R P L E G R H S G N G F S Y A Y E E G F L K K Y F I F G L H E
UniRef90_F8CIX0	A H P D L Q T P E Q F S N A H A H V L G A L L G Y G D P D L T A S L
UniRef90_F3LJ33	A E L A T S P A S G A E V L G T E E V A A R V L E L E G
UniRef90_W8EW57	P H A D F R A L E G R H S G N P F R Y A H N E G H L E R Y S V L G L H E
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UniRef90_R7ZJT1	S H P D Q T P E Q F S N A H A H V L G A L L G Y G D P D L T A S L A S
UniRef90_XOBPW3	T H L D D A R N Q E E I G L A M D S P I Q Q L I A A G V V E G K H I Y N V G L
UniRef90_M3JJX6	A H D D L D T P S T H E N G Y L D A M A A S M M T G T S W H T L M K T V P
UniRef90_R5XTY7	A H G D F N T P D T T G S G Y M G G M A L A G I C G L W D S G
UniRef90_U1PST7	A H P D V S S P K D G Y P N A H A M V L G S L M G Y G D N S S N M M K
UniRef90_W2UPF8	A H E D L R D D Y D G N P V S H A C A T R T L D G L G D G E H P T
UniRef90_UPI00041C6442	A H T D F R T T E T R H S G N G F S Y A F E E G F L N K Y F I F G
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UniRef90_UPI00046303AE	P Y F G F G K E K N D E N S T S Y L T K I L V M E E P C N L F N Y A N L G Y
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UniRef90_D0Z3Q2	T E T D I A Q C V R V G V I N F D A H F E L R P A L S M K P G S A F H M A A N Y
UniRef90_X1AZB1	S H P D L Y P D Y E G N P Y S H A C V L R R I L D E S L
UniRef90_W9A711	A H F E L R P S L S L R A G S A F H T A W C Y S K E Q Q R S F D F L G L G I
UniRef90_UPI0003B68F50	A H A D I N T P E S S P S G A F H G M V L R A V L G E G D P E F A
UniRef90_W0H6U2	A H P D L H T P E S S P S G G F T G M A L R A I T G E G V E G L R L S
UniRef90_I7LW93	A H P D M T P Q Q F P H A H A M V L G N L L G N G D P D F V K A
UniRef90_UPI0002D2CC20	I D S Q F G V S Q L K G N V H N G S P F R L M L E N P V F K K N E S K F I Q F
UniRef90_UPI00047D6731	A H S D F N T P E T T E T G Y L L G G M V L A A T C G L W D S G

170 180 190 200

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UniRef90_Q1Q9E3	F S N T A A [F D R A E Q L G V D I I S D E D C T		
UniRef90_G6XL33	D P L V S D A N V I Q L G E R E S H D P D F V W P D I A N T A I E Q V D I F Q		
UniRef90_U2IZT1	G I Q D I S N T P S L L A Y A K D K G T T V I K A E D V H		
UniRef90_U2YW52	L D G R R I S Q V G L A P F A N T R R A H E K A M G I S V R T A R Q C R		
UniRef90_T1UED9	Q K L C V D P K C L V Y F G V R S V E Q S E R D V I K E L E I P L F S V D T I R		
UniRef90_C2GHP7	V I G I S R P N N T K V L F D E A D A L G V T Y A T E D E L R		
UniRef90_X6KFD5	P I D P A R C V L V N A R D L D P A E T E L L K T L P V I R T E C P D		
UniRef90_UPI00037E9AFB	K Q G Q V D A S H S M Q I G I R G N T L D W L Q P S Y D L I G Y N V I T M A E F N		
UniRef90_M5EXE2	G P L V A D E Q V I Q I G E R E N R N P D F A W P D I N A M T L I D V F A A R		
UniRef90_S0DHQ2	F E A M D L K Q N L V H C G M R D V T D L E R S R V E E A G F P V I W G D L N H		
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UniRef90_UPI00036574EA	P A L D P A A I V M L G Q R D E R Y R E A I A P S I A P R V R L H P A E V		
UniRef90_W5WIQ2	A E V P V S A R R V V L V G A R N L D P G E Q A L I D R G L V R H V P V E Q G W		
UniRef90_G5K5G4	Q E H N N N L F L D F V A K S K G I A F L T G Q D I Y		
UniRef90_Q8RFN0	N V I G I Q R F S N T K R L F D R A K S F G V T Y Y L A E D I L		
UniRef90_UPI0003B5BDB6	L A P G I D P S R V V L A G T R A W D A E E E R F V Q E H G I R T V G V T D L G		
UniRef90_V4JLD9	V S D Y V N P T A G T V A A E R V V V G G A R S F D D P E L E V V A A R G I A T L T V E A L R		
UniRef90_UPI00036423FA	Q T Y F V S Q D S L R V M D K L L F D T K R L G E V S G A		
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UniRef90_F4ARQ2	L P A T V A P H R I V L T G L H E W T D D A Y P H I E R W G V H A L A P E D		
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UniRef90_F8E3E1	L D G R R I V Q I G I A D F A N S A A Y A R R D Y G I T V I R R D E L H		
UniRef90_UPI00037C67A9	P A H P L S A D R V I L A G V R S A D S E E D D Y I Q D A G I R L I G A V E F S		
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UniRef90_UPI0003B44441	D A G T V A P G R V V I A G A R S F D E A E L E A V E A M G I A A L T V D A L R		
UniRef90_UPI0002E30058	L P G K F D A S K V L I V G L R S W D T G M K E R Q E K L G I K G L S P E K V		
UniRef90_R5J1D6	P R P L C D A S N T V L F G L N M T A P I N R R E H F A Y K H Y R V V P S L S V		
UniRef90_W2RL40	T T V V G I A E P S N T R V L F D T A D R L G V P Y V V D T D A Q		
UniRef90_H5URZ3	R Y A A V G I S R T A N T G A L F D R A A E L G A E Y L T T D D E C S		
UniRef90_UPI0003754206	Q E A E I D E S R I I T I G L E M F T P T A R R S A K D A L G T L V H K L V I E		
UniRef90_UPI0003649E77	R A L E P S Q V V L A G V R A L D P A E K E Y V E E A G L A H V E		
UniRef90_B4MERO	Q T Y Y V N Q D S L R V M D K L F F D A Q R L G E I S G A		
UniRef90_R7L7V7	G N F Y N P K N A V I L G G R D I D E L E L P N I K D A G V T L I S T K D I Q		
UniRef90_I1S4F4	G H E P L D V N K V I W C G L R D C S E L Q I K G I K E A G V D V V W G K A D E		
UniRef90_K1WFA1	G A H S E Q H K V V V S K A A D R Q S M N D L L H D E A V G F Q V F T T D D I D		
UniRef90_H5WF74	G A H S E Q H K V V V S K A A D R Q S M N D L L H D E A V G F Q V F T T D D I D		
UniRef90_A5DD45	L L T N S S I H A A I R G P Y P G P K D V Q H D E K C G F D R I L A R D I D		
UniRef90_C2G0E3	Q T Y L V S K E S V N M Y D K L F F N A T R V G A I		
UniRef90_W3X1C5	G E A L C D A S N T V L F G I N M S S P E H L G Y L L D H G Y R V I S S S V A		
UniRef90_UPI000468F1E1	L D P R R I V Q I G I A D F S R A Y R E R A R A F G L T V I H R D E L V		
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UniRef90_UPI0003B49552	C L G V S R A G N T R A L F R R A A E L D V L V R E D R E I T		
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UniRef90_UPI0003F8BC47	L P A R F S P S Q I L Y V G L R N W E R D E I K V R Q R M Y G I A Q V S		
UniRef90_R5WA60	V E R F V S L G A L K T S P A S P S G R V T		
UniRef90_F8CIX0	Q K N S T D A L N A L K K L Q F P F Y S M Q Q I F		
UniRef90_F3LJ33	Q Q Y L V A P D V L T A L E K L H F E T L R V G Q I R D D		
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UniRef90_UPI00037846B3	V R K T L K P S Q V R Y E G M Q G G V D V E Q A E L L D R L G V S Y A A A		
UniRef90_R7CT44	V Q H P P A A E N V M I A G H D P L P H E A E F L A E K G I A T C S P E S V R		
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UniRef90_XOBPW3	H G G N V A P E N V V I F G A R D I D P E E M E T L E S K G V T I I K P E A A N		
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UniRef90_R5XTY7	V D R A V I L G A R T S P A E W E R A D A P D T V		
UniRef90_U1PST7	L H E N Y T S K E I F N M L N D E D E R I Q Y N T F E S L V		
UniRef90_W2UPF8	Q S Y L V E P E V M G T F E K M H F E A Y R V G E V H R N		
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UniRef90_W0ZAQ1	Q T Y Y N S S D E I A I L E D L Y F E S Y R L G E L K D I T I A E P V M R		
UniRef90_UPI000255A538	L P A K F D A S K V L L I A G L R S W D E G M R E R Q Q K L N I K S L S P E Q T A		
UniRef90_R5KQ65	S R E K G R E F N Y L G L G I H A N S Q A M F K L A D E L G C R W L L D N Q M T		
UniRef90_D0Z3Q2	I K P E D I T Q V G R A A T P E Q L E Y S E E T G I T V I S T E K I L L		
UniRef90_X1Azb1	U N I K P E D I T Q V G R A A T P E Q L E Y S E E T G I T V I S T E K I L L		
UniRef90_W9A711	U N I K P E D I T Q V G R A A T P E Q L E Y S E E T G I T V I S T E K I L L		
UniRef90_UPI00046303AE	A D P A V S P G R T V L V G T R A F D P A E R A L V D S G V V R H V P V P A D P		
UniRef90_UPI0003B68F50	G S G A V P L E R V V L A G T R D I D A A E A E V I R A R S V A I L G S D D L		
UniRef90_W0H6U2	V A R P V K P G H V M Y V G L H D P N E W E S A E M L R L G L Q N V G P E Q L A		
UniRef90_7LW93	G A K G S N C C Q E D Y E Y L K Q K G A Q I Y W L E K D I R Y L L N K N K N Q		
UniRef90_UPI0002D2CC20	F G A G V K P N N V A L I T G V H D I D K E L L N N V N N A G L M H F P P S T L T		
UniRef90_UPI00047D6731	V P E E R I V L V D A R D L D P P E R E Y L E S S A V R R V S V P A L D		

210 220 230 240

UniRef90_UPI00037D850A	V P P G A S P F P F R F P F P E N F P H R V Y L T L D V D G L D P S L C P A T		
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UniRef90_Q1Q9E3	N K K W K I A A Q I A D F I E S V D I Y L T I D M D C L P S S V V P G V		
UniRef90_G6XL33	K I G P S G L S Q R I H D V L L R E P E Q S F W I H F D V D V M D Q A I M P A V		
UniRef90_U2IZT1	A G N V S E I R K A V R D F A V Q V D L V Y L T I D L D A F A A P Y A P G V		
UniRef90_U2YW52	D Q G L A A V V A Q E L E R L S G L C D L I H V D F D I D V I D R S Q W P A S		
UniRef90_T1UED9	E N M Q E V V K K T K E L L K A V D I I Y L S L D D I M D G K L F T S T		
UniRef90_C2GHP7	H A D I A E I L S T A A R D V D I L H V S I D D L V L P A G V A P G V		
UniRef90_X6KFD5	W A T A S T R L K A P D A K R V H L H L D V H D P G A L Q A N		
UniRef90_UPI00037E9AFB	K R G I E S V I Q E I L E K V G D N P I Y I T F D L D S L D P T I A P A V		
UniRef90_M5EXE2	E L G A A K V L K K T R A T L A R T G W P Y W V H F D V D A L D Q T V M P A V		
UniRef90_S0DHQ2	H V D F E G E L G K V L D E K K F D Q T M V H L D D L D A L D I S V G I V N		
UniRef90_F0LV72	Q A N H I Y H M T Q L Q H F I D D C D Y L Y L T I D L D V F P A A T A P G V		
UniRef90_UPI0004004691	G K V N T A E P I I R N A N V I S F D I S A I R S S D A C A N		
UniRef90_UPI00036574EA	V H G R A A Q L A A E A A E H L D R T T P G W W V H I D L D V L F P A C A A A S		
UniRef90_W5WIQ2	Q T S W V T D A V V A S R S P Q F Y L H I D L D V L D P S E F G E V		
UniRef90_G5K5G4	K L G Y Q K V C Q I I D H F L E G Q K Q V Y L T I D M D C F A V G A A P G V		
UniRef90_Q8RFN0	K L S D L N I K P I L E R N D Y I H L T I C T D V F H I T C A P G V		
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UniRef90_F4ARQ2	L P M L R E I D V L Y V T I C L D A F P S D I A P G V		
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UniRef90_UPI0003754206	S D L I S A D V E I E E I T K R C D L I Y L T I D I D V L P H Y Q A P G V		
UniRef90_UPI0003649E77	E L G F E E A L T R A L D N L A S K C G K V F I H F D T D V L D P T V L R A N		
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UniRef90_UPI0003768C7B			
UniRef90_B4MERO			
UniRef90_R7L7V7	K Y G V E A M F K K A I E I A S N G T D G V H I S Y D L D I I D P K I A P G V		
UniRef90_I1S4F4	K V D F T A G L A A V L D R R D D I K D A H I H L D L D V L D Q S L G R V N		
UniRef90_K1WFA1	D M G A D G I A A A L K K R L G K G P V Y L S F D I D T I D P S M A P A		
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UniRef90_C2G0E3	A G K M D Q S E P L I R A A D M V S F D I G A I R S S E A C G N		
UniRef90_W3X1C5	R Q P I E Q A M A A L R F L E E R V D I I V V H L D V D S I D P R M F P L A		
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UniRef90_UPI0004228544	D L I A A D P K G A A R R A L A A A L A D C D V L S V H D V D L D F L E L P L S		
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UniRef90_D5NWY3	L R S S P E A V V I E W L K A T G C S K F V L H V D V D S I D S A E Y H L G		
UniRef90_Q236D2	E P Y T Q A C Q K F L E L L N S L N D F Q N I H I S F S L E S I H S S Y C L G V		
UniRef90_A0A038H537	D E G I G A V T K H L V N D A P W F V T F D V D G L D P A I A P G V		
UniRef90_UPI000476C777	L D A D A V A A T V L E T T G P G Y W L Q V D V D V D P S V M P A V		
UniRef90_UPI00046A10E5	E N S D A I R S W L K S C G A S K V V V H F D M D V L D P A E I I A A		
UniRef90_T0L040	K V A F G R E L D G M L E R K A F T H V D L D V L D E S L G R V N		
UniRef90_UPI00035FE7F8	M T V A Y Q Q Q L T D A L Q Y F M D Q H D Y I I L T L C M D V L N A A F A P G V		
UniRef90_UPI0003B49552	D P A A V V A E L E A T G A S N V F V H I D L D V L D P S A L A G L		
UniRef90_N6ZQJ4	P A N L V E V Q A A L D V F I A D C E H Y L T I D I D V L P A C E A P G V		
UniRef90_UPI000476C1E2	R E D I K E S E P V I R D A D L S F D I T A K G A D A P G S		
UniRef90_R7J4X9	S S I V L D L W L K D T G V S K V V L I H F D L D V I D P N D M I A G		
UniRef90_D9VDX7	A G G L A V R S D D V A G T L I N A A G A D R V Y L H V D L D I D P A E F P G V		
UniRef90_UPI00036913FC	R L G A R T A G K Q V L Q S I P T S A S L L L H F D I D V L Q R K A M A A A		
UniRef90_G0R0U2	Q P S T Q A C Q Y Q F L F L L K N H I T Q S N I H L S L S E A I N S A C C P G V		
UniRef90_UPI0003F8BC47	V R G E K D F K E E M V I Q A E K H I T T D A F G I E I D L D A I P N I P S S A		
UniRef90_R5WA60	K E E I T D N S D A V R R W L D L C V C S K V V V H L D D L D V I D P A E I V A A		
UniRef90_F8CIX0	L Y D V E A L R R A P L D T L A C D W G G D V H L S I D L G L T T P E C M R T D		
UniRef90_F3LJ33	W R K E I T F D E C I T K T Q Y L T G A P I G I E V D V D A I T E M P S		
UniRef90_W8EW57	C I T R Q A E P L L R Q A D F V S F D I A L R W N D A P G Y		
UniRef90_UPI00037846B3	P S R I V A E V R D A G I E R L Y V H V D L D V D P S E F A G M		
UniRef90_R7CT44	K G N E L D A E G A I S W I R E N G I K H I A L H L D C D V M D P H D F Y A T		
UniRef90_UPI00047019DE	Q G A D E V T K W M E R Q G I E F L A V H F D L D V D P Q H F R S V		
UniRef90_R7ZJT1	R D G I Q L T I H E M L R Q L M F E V D R I Y V S V D V D A L D I T F A P D V		
UniRef90_XOBPW3	K V D F T S A L A E T L D R R D D I Q E A H I H F D L D V L D D S L G R V N		
UniRef90_M3JJX6	A E T L L A A I G T G P V W V H I D W D V M E P G L I P A A		
UniRef90_R5XTY7	K I Q T N K F I S N N E I H K F I K R F D H I L V H F D I D V L D E H F F H S T		
UniRef90_U1PST7	V P P E E V A W D W E P S L S E P A Y L H F D I D V L D E H F F H S T		
UniRef90_W2UPF8	V R K E T E I I H E A E R A L S F V E D D F F G L E I D C D S I I N I P S		
UniRef90_UPI00041C6442	V Q E M E P V V R V A D L L T F D I S A I R H Q D A P A C		
UniRef90_W0ZAQ1	D P A S V V A A V A E T G A S R V F L H I D L D V L D P G A V A G L		
UniRef90_UPI000255A538	Q P S T Q A C Q Y Q F L F L L K N H I T T D A F G I E I D L D A I P N I P S S A		
UniRef90_R5KQ65	K D S S A V L S W L K K T G A S K A V H F D L D V D P G E M I A G		
UniRef90_D0Z3Q2	T R N K K K V Q A V L D G F I D S V D H I H L S V D M D V F S S T V A P A A		
UniRef90_X1AZB1	N N G V K T I S R E I I E S F G D S I D L I Y L S F D L D V M D P A F V P G V		
UniRef90_W9A7I1	T R N K K H I Q A Q L D N F I E H V D C I Q L S I D L D V L D F S S S I A P G A		
UniRef90_UPI00046303AE	D D V V K A L R E A D V G A V Y V H I D V D L D E H F F H S T		
UniRef90_UPI0003B68F50	E T P E A L V E A V R R T G T A H V Y L H I D L D V L D P A A L N G L		
UniRef90_W0H6U2	R K G S Q P V V E W F K S T G A K H L A I H F D L D V L D P A F F R A L		
UniRef90_7LW93	E D S L A G Q L F E D I L N K L Q Q E C D K I F I S L D V E S I N A K F C P G V		
UniRef90_UPI0002D2CC20	P E S V I K F L G D S G D K V V W V H F D V D W D V M D P G Q I S A		
UniRef90_UPI00047D6731	A S V L P D G P I Y L H I D L D V V D S A Q V P G L		

250 260 270 280

UniRef90_UPI00037D850A	G T P [V] P G G L G W Y Q T D L L G W I C A Q R E L I A F D L V E L A P P G		
UniRef90_UPI00037C5A9F	P A S I P G G I Q A H E L R L A A R L L A A D S R V V R G I D I A E V D V T V D T		
UniRef90_Q1Q9E3	S A P A A Y G I E L S F V E R A V K L L C S G K V V K V A D I A E I N P T F D I		
UniRef90_G6XL33	D C P G S P G L S P E Y L V Q I L S P L V S S A G C L G M S L T I Y D P D R D P		
UniRef90_U2IZT1	S A L A F N G L V P D T F Q Q I F Q E I I R L P N L V S V D I A E L N P V Y D I		
UniRef90_U2YW52	P G A R P G G V S A Q A F F D A A R V I G A H P K V R G V D L T E Y D P S L E V		
UniRef90_T1UED9	G V R E N H G L L S F D E L K Q L L G M L L E S D K L G A I E V T E Y N P T		
UniRef90_C2GHP7	S A P A A V G V V D L N T I R D G L A A C M Q T G K V R L I D V E L N P T Y D I		
UniRef90_X6KFD5	R Y T T P G G P E P K Q L R Q A V C G M A G L L P I S G I T I S A Y D P A F D A		
UniRef90_UPI00037E9AFB	S N L E P T G F N M E E A K A L L Q C V K K S K N V I G G D V V C M P T K D N		
UniRef90_M5EXE2	D S P G S P G I N P D D L V V V L A A L V A D P R C A G M D I T I F D P D L D P		
UniRef90_S0DHQ2	K F S A H G G L L E D D L E K C F K M I P S K T K P V S L T I A S F D P S Q D V		
UniRef90_F0LV72	S A P A A R G V V S L E T L T Y L D R I L H Y K N K L M I A D A E Y N P T Y D I		
UniRef90_UPI0004004691	S N A T P N G F Y G E E A C Q I C R Y A G M N D K L T S I G F Y E F N P A F D Q		
UniRef90_UPI00036574EA	D P A M P G G L G W P E L T I V R R A L T S P K C R G L G V G V Y N T D L D P		
UniRef90_W5WIQ2	T C P E P G G L L T I A E L V A A I R A V A A L R P I V G A G I T E C N P E R L R		
UniRef90_G5K5G4	S A I Q S L G V D P N L A V L V L Q H I A A S G K L G F D I V E V S P P H D I		
UniRef90_Q8RFN0	S A P Q T F F G I W P N Q A I G L L N T I A K T K K N L T L E V A E I S P R Y D Y		
UniRef90_UPI0003B5BDB6	A S P V P F G V T A A E I V A S V R R L R E R V P L A G A T I T E F F P S		
UniRef90_V4JLD9	N S P S P L G G M S P Q E S L A V I E A V A S S A K V V G V D V E V V P Q L D P		
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UniRef90_Q6AG97	G S P E P F G V T T E Q L C D A I R A L R A R F E L A G A A V T E F A P E		
UniRef90_UPI0003B5DC2B	S F P N A Y G V Q I E H L I Y L K K N I G T R L K I S C V A E Y S P T Y D Q		
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UniRef90_UPI00037C67A9	P A S V P G G L I S P T L T E T I R A I V A Q Y P L A G A G I T E F A P A		
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UniRef90_UPI0003B44441	K H P T P M G M R P D T L A E T I R L M N D I A R V D G L G V E F		
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UniRef90_W2RL40	N L P N Y T G V Q F E E M M M K A L E V L M A H K K T S A L S V A E V N P D H D P		
UniRef90_H5URZ3	S A P A A Y G V P V E V L D A I C R R V A G S G K L A I L D V E L C P R L D V		
UniRef90_UPI0003754206	S A P A A L G G V A P E V V Q A V V E T V A A S G R L A L F D V A E L N P S L D A		
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UniRef90_Q236D2	T A P L P G G L S F H Q A R G L R H L C M K A Q F A G I D F T D F N P S N E		
UniRef90_A0A038H537	D S P D P G G L M P E Q L S R M L T A L A P Q A I G A S V T V F D P D L D P		
UniRef90_UPI000476C777	V G V V P S G M K I S E V V V R V I N D I A T K E I L V G L T V A E P M P R		
UniRef90_UPI00046A10E5	E W P S P G G L D E R D L V E C M E V I P K R T E P T S L V C S F D A R L E G		
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UniRef90_UPI00035FE7F8	S Y P M P F G I G A G E L V A L E Q V R D S G K L R V A D L A E L N P E H D I		
UniRef90_UPI0003B49552	S A P A A R G V P L A L V E A L E Q V R D S G K L R V A D L A E L N P E H D I		
UniRef90_N6ZQJ4	S A R A Q P F G G L T G E E A C Q L C W Y A G L S E K L S S V G F F E Y H P G L D D		
UniRef90_UPI000476C1E2	V R A Q P F G L T G E E A C Q L C W Y A G L S E K L S S V G F F E Y H P G L D D		
UniRef90_R7J4X9	V G V E P D G M K T E D A V S V I N S I A D N F D L A G L T V A E P M P R		
UniRef90_D9VDX7	N Y P E P G G L T I A E L V E A I D G L S G M E V V V G A G I T E C		
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UniRef90_G0R0U2	S R P V I G G L T S E E I E I M F Q A G I D E R I K S I D T D Y N P N I E		
UniRef90_UPI0003F8BC47	M T Y S G F S A E Q L R Q F L H Y F G K H K N A S Y L H C E G A P D L		
UniRef90_R5WA60	V G T D P G G M S M E Q V V R V V D A V A K E K E L V G L T V A E P M P R		
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UniRef90_X0BPW3	E F P S P G G F L P K D V M T A E L F D V K L I G E N G V R H I D F V Y A D P		
UniRef90_M3JJX6	Y A I E A G L L A P Q L R D A L A A I P A S Q I A A I E L A E F E L P E		
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UniRef90_W9A7I1	N M T N M G G V S L S V V E W A L K Y I M E S G K V K L V D L A E L N P E F D Y		
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290 300 310

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G D L G S L T A G R W F C E I L

D N R T A K V A A R L I S D A T A L M
Q A E V P P L V G E L L S E L L A T M
T N N
T G E L A V L L V S L L
Q G T I E P V A L K G V V A F V
D H Q T A R L A A R L C W D I A
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D G R T A R V A A R M I
D N M T S K T A A I L A C S L L R
R G
D R A V L A T L V P A L
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N R V T E E I A T Q I I E R I L
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D N H T A R V A A R L V A R V V
V A E L T S I T A A Q V A D S I I S L M I I K D E K N
R E Q T A M L V S Q M I W C F V
G L D M T E R L T D S I V D I L

A D G S T L A P F V A G V A A A L A

D F R T G Q L L G N L I Y Y F T M G Y A L R L K H Q
R D M T A L T I V R L L
D A R Y A R L L T D V G L A L V G S G L G A

G D T V A R L A V D G I V R F L E G M K E R G
N G R T V K L G A Y F V Y E A L N N L L R G
D P E S A V D D L P T I L R L V G A L
D Q R T A R V A A R L I H L L T L
S R K T T A S V I A T M I W Y F I E G F Y N R K K

D Q Q N I N E L V G L L C E A M R
D Y R T G L L L A N L I Y Y Y C L

R S R F A H L S A A V A C D L A L T A M E A S R
T G E Q A K R V V G Q T L A E L S C A F I K A H R
H G L A S M V L A T M L W Y F V E G Y Y Y R R R E T D F R G P N F V

D K Q A T E R A L E L I L D I T
H K L Y K M L T
D D G Q A A A L A G K L L R

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R N L S A K L I A Q I I W Y F L

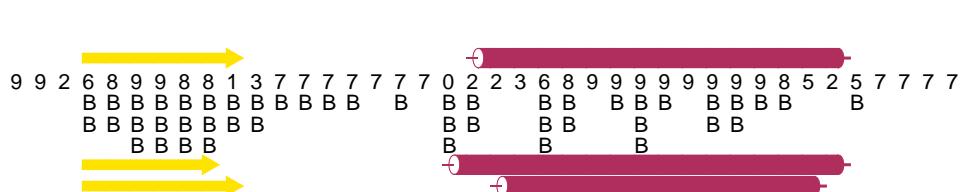
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D N Q T A K L A T K L I Q T I V H

S P E H A E D D L P S I L R I G A L

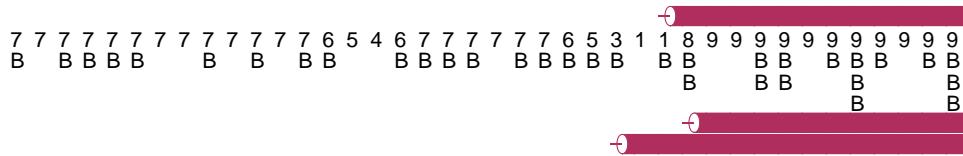
D G H A A A D V V R A A L R L

This figure displays a sequence alignment of UniRef90 proteins, focusing on specific domains and motifs. The alignment is color-coded to highlight conservation: black for identical residues, blue for semi-conservative (e.g., G/T, C/T), red for conservative (e.g., R/K, D/E), yellow for non-polar hydrophobic, and green for polar hydrophobic. The alignment shows a highly conserved N-terminal domain (residues 1-10) followed by a variable region (residues 11-30). A prominent motif 'GVP' is found at positions 11-13. The alignment also includes several large, well-conserved structural elements, such as the 'LRR' (Leucine Rich Repeats) motif in the middle of the sequence and a 'GK' rich domain near the C-terminus.



UniRef90_UPI00046C3132 T G A A P F H S M F S V P C P 50 60 70 80
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 UniRef90_W1K020 H L N F D S L L K K L S L L D Q N H P K D V L K A R K M V S K D A E V S D I I
 UniRef90_M7MGB6
 UniRef90_C7XTW7
 UniRef90_E8TKP2
 UniRef90_UPI0004722797 N W L A P K S D G P F E E V P V D L T L D M E K V D G I V A K S T V L K Q A R A
 UniRef90_A4HCM0 D W Y V A L T E A T
 UniRef90_T1AJX9 A G F A
 UniRef90_L8BDN3 L D A Q D
 UniRef90_UPI0003F76300 I R L V D L G D L
 UniRef90_W4C9W6 D N D Q P L I H V P V D A Y D G T S L V S E N G I K G R A Q L L Q Q L E A A Q H
 UniRef90_D0WPS6 A M S R R Y
 UniRef90_H0QIS4 R P V A D A G D V A V R D
 UniRef90_Q9AG88 V G K A Y E V G Y H M R D F P Q D L C N M N D K F N E A C E E M T Q W V Y D Q C
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 UniRef90_R7IM64
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 UniRef90_UPI00042B3BA5 E E G K E L K D P R V L T D V G D L A V Q E I R D C G D D D R L M N V V S E S V
 UniRef90_UPI0003D9E1D T L S R V R D A I
 UniRef90_E1SNT4 A L M V A D L Q D S A Q D L D P Q H P A E L E Q L R A L T A E L D S R L T P V I
 UniRef90_J3DVW3 S A R A
 UniRef90_UPI0001FE49C4 T L I N P E L N V N L N T I S I S D A G N I R S D I K L E D A H Q L L S S K V
 UniRef90_C7PIL7 V K I A D L G N L R K G V S L Q D T Y A A L K T V L
 UniRef90_UPI00036A57BF I R K K L Y H L K K G Q S H Y K I A D L G N L R P G V D L K E T Y N R I Q N I G
 UniRef90_W7DP74
 UniRef90_L9PJM2 L D R R D W D I L D V P E F F R E A T V N D P N E K L H R M G R Y A G L A Q R A
 UniRef90_TORTQ7 E T T F N Y S N V I N D N C O D D N F D E L Q K I E L E N I K N S L S T
 UniRef90_G2E9U0 H L D F S K E M Q K L S E L D Q K N S K D I Q K S R K L V S K I D K H V S D L V
 UniRef90_C4SVU3
 UniRef90_V8C6V9
 UniRef90_UPI0004729F77 D N D Q P L I H V P V Q A Y D G T P L H N E K G M Y G R T Q L L E Q L E A A R H
 UniRef90_W4BK17
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 UniRef90_C7BIA6 T D V P V I H V P V L G P A S P L S V E N G I I G R E A L K T Q L N S V W K I I
 UniRef90_Q9UZ83
 UniRef90_UPI0004008201 L D C K D L M Q K A S Y F D D S D P N Y H A K L G D L V K E I D Q L V A D L I
 UniRef90_K7K3R0 E E G K D L K D L R I M A D V G D I P I Q E I D E R G K L L I F V R A I
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 UniRef90_UPI00035D2726 K N V S L V D L G N V A C E D D Q L E D S Q A Q C A Q V I
 UniRef90_UPI00035C6825 H L D F H K E Q L E L S K L N S T K K K D V L K A R E I V A K I D D F V T H V V
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 UniRef90_A0A031FP58 T L S R V R D A I
 UniRef90_UPI000376C835 A D R L S I E A H I V G S E S G H Q V D D W S V S L P A A N E T L S G L A R E V
 UniRef90_UPI00037E4211 L N I S D L G D L R L G D T V S D T Y L A L Q S I I
 UniRef90_J1TBR8
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 UniRef90_F8CIW7 T S L A D I G N I K K G D S T S D T H F A V T K V I
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 UniRef90_UPI00036CCEA1 H L D F S E L M K R A D S F D E K S P E Y H I L L S Q L V T K I D E E V T Y L M
 UniRef90_F3BJL2 E D S I E Y I K A V G
 UniRef90_A9E7P9
 UniRef90_S2CY89

lupas_21
 lupas_14
 lupas_28
 jnet
 conf
 sol25
 sol5
 sol0
 jhmm
 jpssm



Sequence logo showing the conservation of amino acids at each position of the protein sequence. The x-axis represents positions 90, 100, and 110. The y-axis lists UniProt entries. Colored boxes indicate conserved regions: blue for hydrophobic, red for polar, yellow for acidic, green for basic, and purple for aromatic.

lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5
sol0
jhmm
inssm

UniRef90_UPI00046C3132 A H T D T G D I A L G E K I T H G T P F R R C V E E G L
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 UniRef90_F3BJL2 P H A D F R E C E G R H S G N G F R Y A Y N E Q H K K Y F D K Y F M F G
 UniRef90_A9E7P9 A H T D F R S L E G R H S G N G F S Y A F K K Y F D K Y F M F G
 UniRef90_S2CY89 A K I D M E E F F G D A O Q V H S Q F I L I H Q P N F L F N Y S H L A Y

lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5
sol0
jhmm
inssm

UniRef90_00046C3132

UniRef90_K1EBU6

UniRef90_W1K020

UniRef90_M7MGB6

UniRef90_C7XTW7

UniRef90_E8TKP2

UniRef90_UPI0004722797

UniRef90_A4HCM0

UniRef90_T1AJX9

UniRef90_L8BDN3

UniRef90_UPI0003F76300

UniRef90_W4C9W6

UniRef90_D0WPS6

UniRef90_H0QIS4

UniRef90_Q9AG88

UniRef90_R2Y3E7

UniRef90_R7IM64

UniRef90_UPI0001F2B008

UniRef90_UPI00042B3BA5

UniRef90_UPI00035D9E1D

UniRef90_E1SNT4

UniRef90_J3DVW3

UniRef90_UPI0001FE49C4

UniRef90_C7PIL7

UniRef90_UPI00036A57BF

UniRef90_W7DP74

UniRef90_L9PJM2

UniRef90_T0RTQ7

UniRef90_G2E9U0

UniRef90_C4SVU3

UniRef90_V8C6V9

UniRef90_UPI0004729F77

UniRef90_W4BK17

UniRef90_B0U5T5

UniRef90_C7BIA6

UniRef90_Q9UZ83

UniRef90_UPI0004008201

UniRef90_K7K3R0

UniRef90_U1M6X4

UniRef90_UPI00035D2726

UniRef90_UPI00035C6825

UniRef90_A0JRW0

UniRef90_A0A031FP58

UniRef90_UPI000376C835

UniRef90_UPI00037E4211

UniRef90_J1TBR8

UniRef90_H6RXG5

UniRef90_K1L7F0

UniRef90_D4ZCN1

UniRef90_F8CIW7

UniRef90_UPI0003B3032D

UniRef90_UPI00036CCEA1

UniRef90_F3BJL2

UniRef90_A9E7P9

UniRef90_S2CY89

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Sequence alignment showing UniRef90 proteins UPI00046C3132 and UPI0004722797. The alignment highlights specific residues and positions (210, 220, 230) across the sequences.

Key Residues:

- Position 210:** UniRef90_UPI00046C3132: L, K, S; UniRef90_UPI0004722797: V, P, L, V, G.
- Position 220:** UniRef90_UPI00046C3132: Q, V, E, P, A, V, A, F; UniRef90_UPI0004722797: V, G, D, V, L, A, G, V, D, E, V, Y, L, T, I, D, D, L, D, V, L, P, A, A, V, A, P, G, V.
- Position 230:** UniRef90_UPI00046C3132: A, M, G, I, E, A, A, A, R, E, A, V, D, H, L, T, R, A, E, L, D, G, F, F, I, H, V, D, A, D, C, L, D, D, A, I, M, P, A, V; UniRef90_UPI0004722797: I, R, K, E, V, K, F, K, A, E, M, S, K, A, L, H, H, V, S, D, H, P, F, G, I, E, I, D, C, D, A, I, Q, N, I, P, S.

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Sequence alignment of UniRef90 proteins. The alignment shows multiple rows of amino acid sequences, with color-coded conservation levels (Black, Blue, Red, Yellow) indicating evolutionary conservation across different species. The alignment is centered around positions 250, 260, and 270.

lupas_21
lupas_14
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